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# NATIONAL TRANSPORTATION SAFETY BOARD

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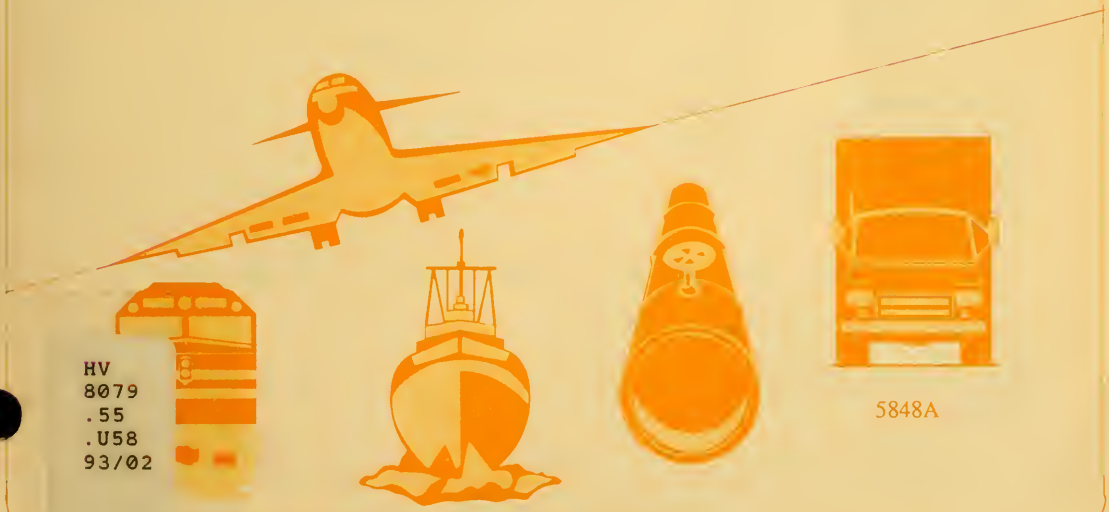
## HIGHWAY ACCIDENT REPORT

CHARTER BUS LOSS OF CONTROL
OVERTURN, AND FIRE
VERNON, NEW JERSEY
JULY 26, 1992



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# NATIONAL TRANSPORTATION SAFETY BOARD

## WASHINGTON, D.C. 20594

## HIGHWAY ACCIDENT REPORT

**ADOPTED: JUNE 23, 1993**

**NOTATION 5848A**

75568

On July 26, 1992, the driver of a charter bus lost control of the bus as it descended a steep hill near Vernon, New Jersey. The bus struck two cars. Twelve passengers were ejected from the bus; six of them died. The safety issues discussed in the report are the deteriorated braking efficiency of the bus, the driver's handling of the gears, the adequacy of State and Federal oversight of motor carrier operations; the adequacy of the highway signs in preparing drivers to descend the hill, and the adequacy of New York State commercial vehicle inspections and safety/compliance reviews. The Safety Board made recommendations about these issues to the Federal Highway Administration, the New York Department of Motor Vehicles, the New York Department of Transportation, the American Association of Motor Vehicle Administrators, the United Bus Owners of America, and the American Bus Association.

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## EXECUTIVE SUMMARY

On Sunday, July 26, 1992, about 11:10 a.m., the driver of a charter bus traveling from Brooklyn, New York, to Vernon, New Jersey, lost control of the bus as it descended a steep hill. The bus struck a car, overturned on its right side, slid and spun on its side, uprighted, and struck another car before coming to rest. A fire ensued, burning the bus and the second car. Twelve passengers were ejected from the bus during the collision; six of them died. The driver and the other 37 bus passengers sustained minor to serious injuries. The two car drivers sustained minor injuries, and the car passenger was uninjured.

The National Transportation Safety Board determines that the probable cause of the accident was the busdriver/owner's failure to maintain the bus adequately and his deliberate disregard in choosing to operate the bus with known brake deficiencies. Contributing to the accident was the failure of the New York Department of Transportation to inspect the bus and ensure that its deficiencies were corrected. Also contributing to the accident was the inadequacy of the Federal Highway Administration's system for identifying motor carriers.

The safety issues addressed in this report include the following:

- the deteriorated braking efficiency of the accident bus;
- the busdriver's initial gear selection in descending County Route (CR) 515 and his subsequent attempt to downshift during the descent;
- the adequacy of State and Federal oversight of motor carrier operations;
- the adequacy of highway signing to prepare drivers for descending CR 515;
- the adequacy of New York State commercial vehicle inspections and safety/compliance reviews.

As a result of its investigation, the Safety Board issued safety recommendations to the Federal Highway Administration, the New York Department of Motor Vehicles, the New York Department of Transportation, the American Association of Motor Vehicle Administrators, the United Bus Owners of America, and the American Bus Association.

## CHARTER BUS LOSS OF CONTROL, OVERTURN, AND FIRE
## VERNON, NEW JERSEY
## July 26, 1992

## INVESTIGATION

### Accident

On Sunday, July 26, 1992, about 8:45 a.m., a charter bus owned and operated by Sensational Golden Sons Bus Service, Inc. (Golden Sons), left Brooklyn, New York, for an amusement park in Vernon, New Jersey. It had 49 passengers. About 11:10 a.m., as the bus descended a steep hill on County Route (CR) 515 near Vernon, the driver[1] lost control. The bus struck a car, overturned, and slid on its right side. It then spun 360 degrees, uprighted, struck a second car, and caught fire. It was a cloudy day, the temperature was 70 degrees F., and the roads were dry.

Two cars carrying members of the same group were following the bus. The driver of the second car stated that before leaving Brooklyn he had observed the busdriver driving the bus forward, stopping, and then backing up and stopping. He had seen the driver repeat this procedure several times. He believed that the driver was testing the brakes. The driver of the first car stated that he had noticed an unusual smell and smoke coming from the rear of the bus after it had passed over the George Washington Bridge (approximately 20 miles from Brooklyn). He said he did not notice anything else unusual until the bus crested the hill on which the accident happened.

A 14-year-old bus passenger seated about 8 rows behind the driver stated that during the trip he noticed that the brakes on the bus were not working properly. He said that whenever the driver stopped the bus, he did so by using the gear shifter instead of the brakes and that the bus would "jump" and "be jerky" as if it was "jumping out of gear." A passenger seated in the third row stated that the driver was grinding gears during most of the trip. The driver of the second car also stated that the busdriver was using the gears a lot to slow the bus.

When the vehicles arrived at State Route (SR) 23 and CR 515 (see figure 1), the driver of the second car saw that the bus brakes were smoking and noted that they were emitting a "pungent odor." He said the busdriver missed the turn onto CR 515. The busdriver stopped on SR 23 and pumped the brakes several times while the brake lights flashed on and off. He then turned the bus around and turned onto CR 515.

The driver of the second car stated that while they were on CR 515 the odor from the bus was so offensive to him and his passengers that they closed the windows and turned on the air conditioner. According to this driver, as the procession began to go down the hill the bus suddenly "jetted" and "took off." The brakes continued to smoke, but the bus did not skid.

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[1]The driver of the accident bus is also the owner of the vehicle and the president of Golden Sons.

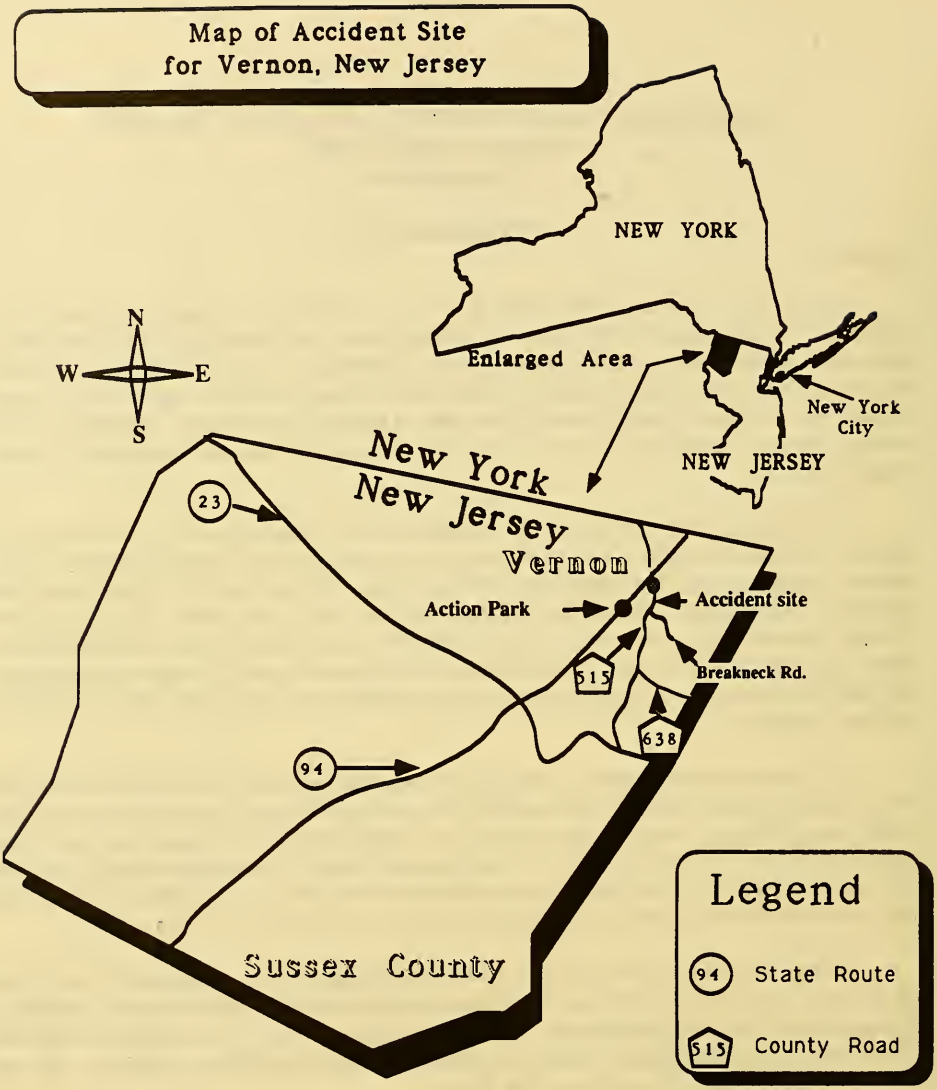



Figure 1.--Map of accident site.

Map By N.T.S.B
Not To Scale

The driver of the first car stated that at the crest of the hill both cars and the bus were traveling about 40 to 45 mph. He further stated that the brake lights of the bus were on and that its tires were rotating, not locked, as it began pulling away from his vehicle.

The 14-year-old passenger stated that as the bus was going down the hill it was traveling extremely fast and that while it was rounding a curve, the driver lost control and the bus flipped over. A passenger seated in the first row stated that when the bus started going down the hill, he noticed that it was picking up speed. He said that the driver tried to slow down and was pumping the brakes, but the bus kept going faster, and that when the driver tried to shift gears, he heard the sound of gears grinding. He estimated the speed of the bus at 60 mph after the driver lost control. Another passenger estimated the speed of the bus at 50 to 60 mph after the driver lost control.

The first car struck by the bus was stopped in the southbound lane of CR 515 behind two other vehicles at the intersection of CR 515 and Breakneck Road. (See figure 2.) The driver of this car did not see the bus before the collision. The second car struck by the bus was traveling southbound on CR 515 when its driver and passenger saw the bus going over the center line with the rear end sliding out. The bus turned over and slid toward them, and they tried to get out of the way by backing up. They had backed up several feet when the bus uprighted and the right side of the bus struck the front of their car.

A member of the Vernon Township Rescue Squad treated the busdriver after the accident and reported that he was alert and aware of his surroundings. She said that he told her that he had lost his brakes and that although he kept pumping and pumping, nothing happened.

When the police interviewed the busdriver in the hospital following the accident, he stated:

> I was coming and I got to the hill. And I applied my brakes thoroughly, and the bus I guess heavy, I just seemed that there must have been a hose busted because I noticed that my air hand start drifting down. So I just, I start patting the brakes and it still, the bus started getting faster. So I tried to shift it into a lower gear and I, I went to second. Then when I wanted to go into the lower gear, that would break [brake] it down. So what I did, shift this like it took off and it was going down the hill and I couldn't stop it so the only thing I could do, going around those curves, it just was going too fast, and I cut in and out. What I wanted to do is pull it like into a tree or something maybe that would stop it. It just went flippin'.

During the interview he also said that he was traveling about 20 to 25 mph at the top of the hill. He stated that he had not had any problems with the brakes until the time of the accident and that none of his busdrivers had reported brake problems. He said that he had never been on this route or to Action Park before.

Twelve passengers were ejected from the bus during the collision; 6 of them were injured, and 6 were killed. The driver and the other 37 passengers sustained minor to serious injuries. The two car drivers sustained minor injuries, and the car passenger was uninjured.

At 11:11 a.m., several people called the Vernon Township Police Department to report the accident, and the police arrived within 2 minutes. Volunteer emergency rescue services were dispatched at 11:14 a.m. and began arriving shortly after the police.

**Preaccident Events**

On Tuesday 5 days before the accident, the busdriver had taken the accident bus to a garage in New Jersey to have an oil leak repaired and the brakes checked. He said that he needed the bus back by the weekend. The owner of the garage stated that 2 days later he called the busdriver's wife and told her that the brakes needed repairs and that he would have to order parts. He stated that the universals were loose and that the bus needed new brake drums, a drive shaft, a pinion seal, suspension work, and radius rods. She told him to go ahead with the repairs, and he ordered the parts.

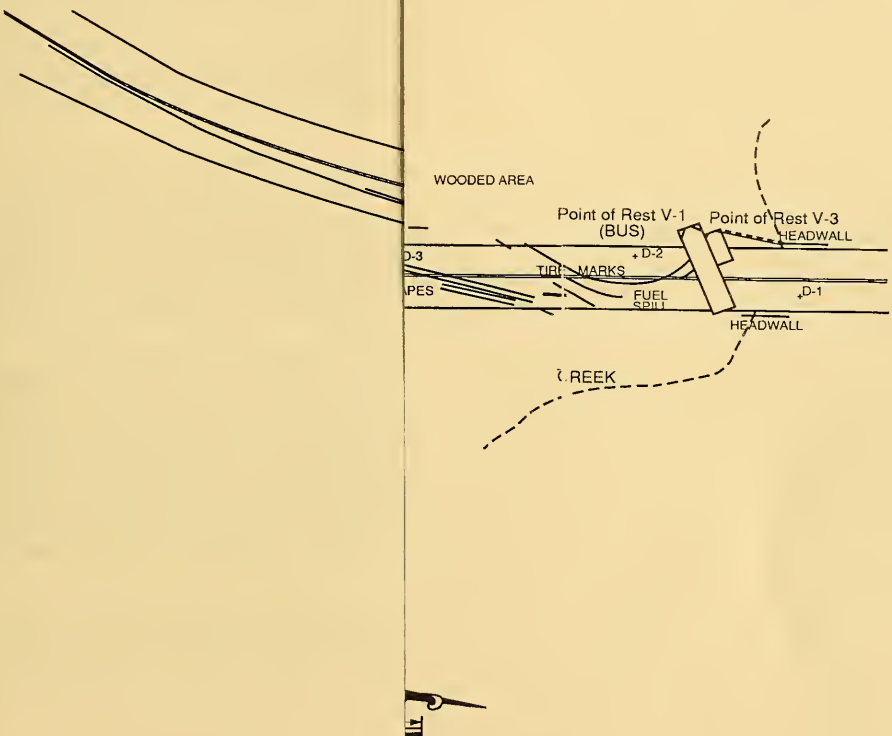
On Friday about 7 p.m., the driver arrived to pick up the bus. The garage owner stated to Safety Board investigators that he told the driver that the brakes had not been repaired and that the bus was in bad shape and needed to be repaired before it could be driven on a trip. The driver said that he would bring the bus back next week. In a second interview, the mechanic stated to a Safety Board investigator that he told the driver to "take it easy."

**Injuries**

Injury Table[2]

| Injuries | Drivers | Passengers | Total |
|---|---|---|---|
| Fatal | 0 | 6 | 6 |
| Serious | 1 | 7* | 8 |
| Minor/None | 2 | 37* | 39 |
| Total | 3 | 50 | 53 |

[2]Based on the injury criteria of the International Civil Aviation Organization, which the Safety Board uses in accident reports for all transportation modes.




LEGEND

D-1 TO D-5 Locations of persons ejected and found dead at scene.

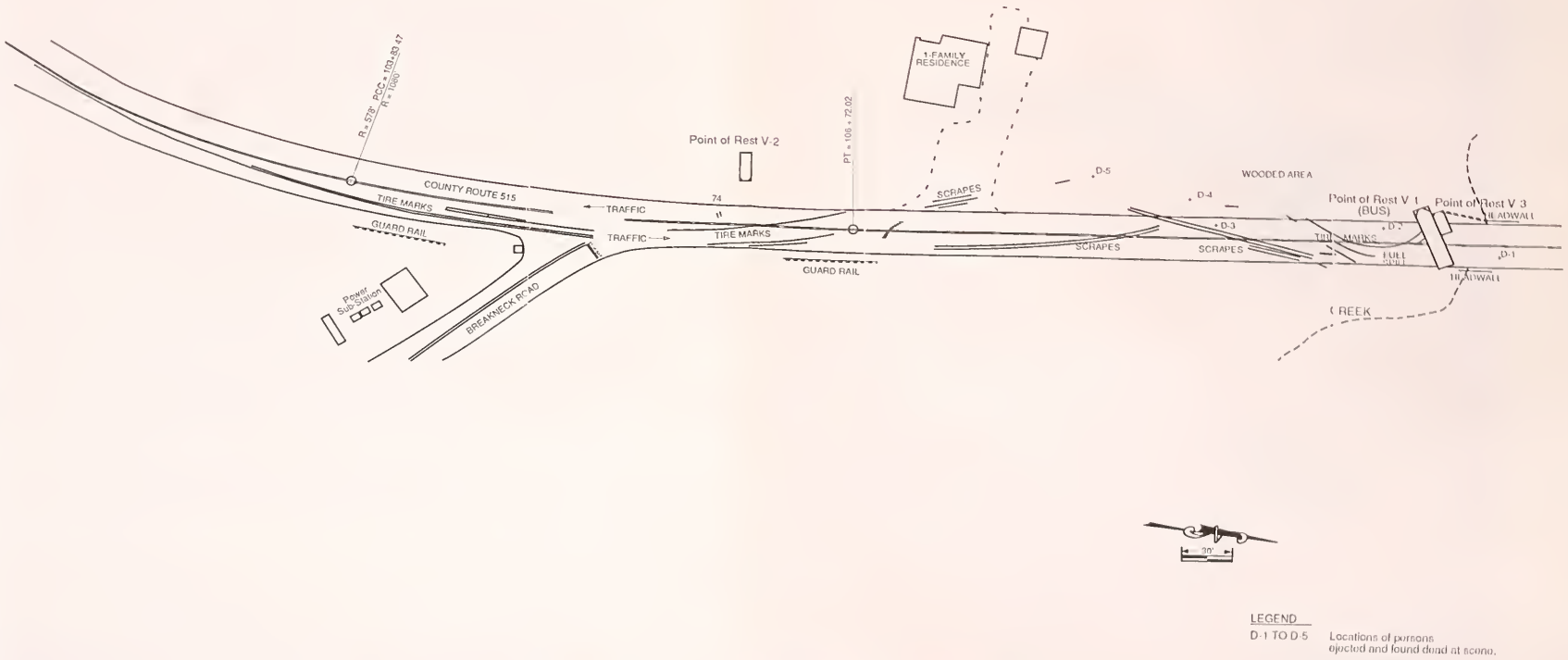



**Figure 2. – – Accident scene diagram.**

*Two passengers with serious injuries and three passengers with minor injuries received burns. See appendix B for more injury information.

**Busdriver Information**

*Personal.*--The driver, who was 60 years old, lived in Brooklyn, New York. Five months before the accident, he had retired after 26 years of service with the New York Housing Authority as a caretaker of a housing complex. He owned Golden Sons.

His last medical certificate[3] was dated March 26, 1992. His doctor stated that the driver was in excellent physical condition. During the police interview, the driver stated that he did not drink and that he was not on any medication. He also reported that he "felt fine" and "slept all night long" and that he "had a good night's sleep" before the accident trip. He did not exhibit any evidence of impairment, according to both a member of the rescue squad and the emergency room physician. He was tested for alcohol and other drugs; the results were negative.

*Licensing.*--In 1987 the driver received a New York class 2 license, which authorized him to drive buses and regular motor vehicles. Safety Board investigators checked with the 50 States for adverse driving records on the driver, and none were found. During a brief hospital interview[4] with Safety Board investigators, he reported that he had been driving commercial vehicles for 8 years. His driving record included one violation; in May 1992 he had failed to stop at a red light and was fined $50.

On January 24, 1992, he received a New York commercial driver's license (CDL). The license had a passenger endorsement and a restriction for corrective lenses. Because he was already a licensed commercial vehicle operator when he applied for his CDL, he did not have to take a driving-skill test. He did have to take a written test. However, again because he was already a licensed commercial vehicle operator, he was allowed to take the test by mail. The State of New York sent him a test package, including a commercial driver's license manual that addressed the following topics in detail: shifting gears, controlling speed, mountain driving, and proper braking when traveling downhill. (See appendix D.)

On July 10, 1992, to satisfy additional State requirements he took and passed both the written and the behind-the-wheel tests required of busdrivers who are subject to the New York Vehicle and Traffic Law. One of the questions on the written test was:

---

[3]Title 49 CFR 391.43(b)(1) requires commercial vehicle drivers to obtain a medical certificate every 24 months.

[4]Safety Board investigators interviewed the driver in the hospital; however, because of his injuries, he was unable to talk. He could only nod his head and write his answers on paper. He refused to grant the Safety Board any more interviews.

You are driving on a level road and you come to the crest of a hill. The road is downhill for approximately one mile after that point. If you have to down shift you should do it:

A. Before you pass the crest of the hill.
B. About 3/4's of the way before the crest of the hill.
C. As the vehicle picks up speed.
D. When you get halfway down the hill.

The driver chose the correct answer, "A." Although he had successfully passed these examinations, he had not completed all of the steps necessary for him to be certified with his carrier as a New York busdriver.

A busdriver in New York State must meet the following criteria: he must be at least 18 years old; he must have a license or permit to operate a bus in the State; he must have passed a physical examination; he cannot have been in trouble with the law as described in provision 509-C of Article 19-A. (See appendix E).

**Vehicle Information**

*Bus.*--The bus was a 1972 Motor Coach Industries (MCI) Model MC-7. It had power steering, a General Motors 567.5-cubic-inch V-8 diesel engine, and a Spicer Model 8844 4-speed standard transmission. Its estimated weight, including the weight of passengers, was approximately 35,000 pounds (17.5 tons). It had S-cam air mechanical brakes equipped with manual slack adjustors.

The bus could seat 49 passengers. It had 23 forward-facing double recliner seats (11 rows on the right side and 12 rows on the left side) and a 3-passenger bench at the rear. It had a restroom at the right rear. The bus was not equipped with passenger restraints, nor was it required to be. The driver's seat had a lap belt, but the right half of the belt was missing. A combination modesty panel and grab rail was between the entrance stepwell and the right front passenger seat. Each side of the bus had five horizontally sliding push-out passenger windows. It had a large rear center emergency pushout window,[5] which had been blocked with a sheet of plywood secured to the rear deck and ceiling of the bus.

*Other Vehicles.*--The first car struck by the bus was a blue 1985 Plymouth Reliant four-door sedan. The second car struck was a red 1991 Chevrolet Cavalier two-door sedan.

[5]Title 49 CFR 571.217 requires a rear emergency exit door or window, or in lieu of these, a roof-mounted escape hatch in the rear-roof portion of the bus that conforms to the regulatory provisions in the standard. This bus did not have a roof-mounted escape hatch.

**Vehicle Damage**

*Bus.*--The bus was a complete loss. The collision created a large opening near the right front of the bus near the windshield and stepwell areas. The sheet metal and entire dashboard were still connected to the bus on the left side. The front roof had collapsed completely on the right side where the front door had been. The right rear of the bus sustained severe crush damage along its full height, and there were diagonal scrape marks along the entire right side. The fire completely burned the interior of the bus and the right front and side portions of its roof. Most of the left side windows were intact; all of the right side windows were broken. The right front tire had burned. (See figures 3 and 4).

*Other Vehicles.*--The other vehicles involved in this accident were also complete losses. The Reliant sustained impact damage on its left side beginning just behind the left front wheel well and extending the length of the car. The driver's door and front of the Cavalier sustained minor impact damage, and its entire front was burned. (See figures 5 and 6.)

**Fire**

According to witnesses, the fire started shortly after the bus came to a stop. The most severe fire damage was in the area of the fuel tank, which was just behind the right front boarding door. The fire damage extended in a V-shaped pattern from the fuel tank area and continued into the passenger compartment and to the right side roof of the bus. The fire also damaged the engine compartment of the Cavalier.

**Postaccident Examination**

*Bus.*--The Safety Board's mechanical inspection of the bus disclosed the following (see figures 7 through 9):

Steering Axle (first):

Right wheel: Brake shoe return spring missing
Brake shoe cam roller at maximum position on S-cam
Tire air pressure: flat (burned)
Left wheel: Brake shoe anchor pins missing
Flat spots adjacent to anchor pin holes
Rear of air brake chamber corroded through
Speed sensor magnetic pickup (for speedometer) missing

Figure 3.--View of bus looking northbound.

Figure 4.--View of bus looking southbound.

Figure 5.--Reliant.

Figure 6.--Cavalier.

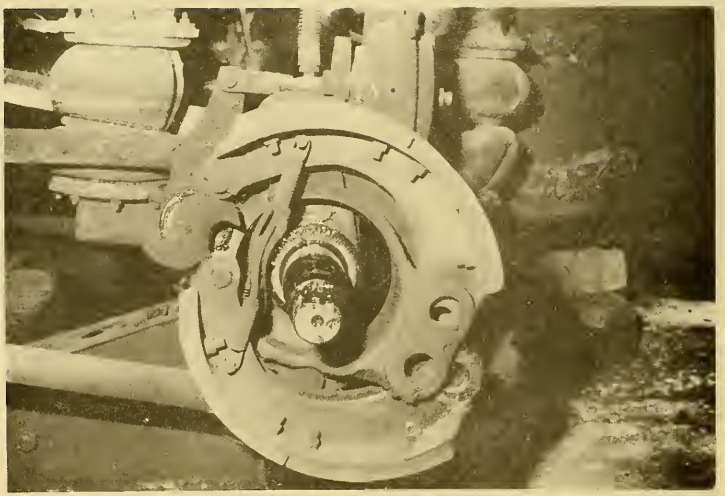


Figure 7.--Left brake on steering axle. (Brake shoe anchor pins missing.)

Figure 8.--Right brake on tag axle. (Air brake chamber spring broken.)

Figure 9.--Left side of steering axle. (Air brake chamber corroded.)

Grease seal leaking
Tire air pressure: 96 psi[6]

Drive Axle (second):

Right wheel: Pushrod stroke = 2 7/32 inches (stroke at which brake should be readjusted = 2 inches)
Air brake chamber loose
Tire air pressure: 62 psi (outer tire)
86 psi (inner tire)

Left wheel: Pushrod stroke = 2 5/8 inches (stroke at which brake should be readjusted = 2 inches)
Slack adjustor loose
S-cam bushing worn
Air leaking from rear air chamber clamp
Grease and water on service and parking brake diaphragms
Tear in parking diaphragm
Tire air pressure: 84 psi (outer tire)
102 psi (inner tire)

Tag Axle (third):

Right wheel: Pushrod stroke = 1 1/2 inches (stroke at which brake should be readjusted = 1 3/8 inches)
Brake shoe return spring missing
Brake shoe cam rollers not seated in released position
Air brake chamber spring broken
Brake drum diameter was 15.065 inches (exceeded maximum allowable diameter of 14.812 inches)
Brake hose clamps were corroded
Brake hose lines not secure
Tire air pressure: 84 psi

Left wheel: Pushrod stroke = 1 3/8 inch (stroke at which brake should be readjusted = 1 3/8 inch)
S-cam rotated beyond operational limit
Brake drum diameter was 15.020 inches (exceeded maximum allowable diameter of 14.812 inches)
Brake shoes rubbing against the side of the drum

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[6]According to the manufacturer, the air pressure in bus tires should be in the range of 90 to 110 pounds per square inch (psi) depending on the tire rating, the placement on the vehicle, and the loading on the tires.

Brake hose clamps were corroded
Brake hose lines not secure
Tire air pressure: 100 psi

The brake linings at each wheel ranged in thickness from 12/32 to 24/32 inches, which was within the manufacturer's specifications. The depth of the tire tread conformed to the Federal Motor Carrier Safety Regulations (FMCSR).

The lower metal straps that secure the air reservoir tanks were rusted through and had been replaced with baling wire. The dry tank had 2 inches of water, and the wet-tank filter was full of water. The corrosion was extensive enough that the following structures were completely perforated: the steering gear box mounting plate and frame, the front bulkhead in the area of the brake foot valve, and the front and rear suspension bogie legs[7] of the tag axle. (See figure 10.)

The clutch assembly appeared to be new. All of the plates were in good condition, and none of the plates or other parts showed any signs of wear or heat damage. The clutch linkage bracket assembly mounted on the transmission was loose. Two of the six bolts holding the linkage to the transmission were missing, and the other bolts had been stripped and were backed out halfway.

The gears inside the transmission housing were in good condition, with the exception of the reverse idler and reverse gear, which showed excessive wear with some of the teeth sheared. The transmission drain plug could not be removed, and the inspection cover had to be opened to drain the transmission oil. The gear selector and transmission were found in neutral.

*Fuel Tank.*--Two fuel lines facing the outer fuel compartment door were severed. One was a feed line to the engine at the rear of the bus, and the other was a return line from the engine to the fuel tank. A fuel line at the top of the tank leading to a 35-gallon auxiliary tank in the center of a baggage compartment was not damaged. The filler spout and two air vent openings were at the top of the main fuel tank. The fuel cap was neither in place nor found among the accident debris. The cast brass filler spout was dented in the area where the fuel cap would fit; no other damage was noted in this area.

*Other Vehicles.*--Mechanical inspections were not conducted on the other two vehicles involved in the accident.

[7]Radius rods that support the rear axle.

Figure 10.--Left side of tag axle. (Corroded bogie leg.)

**Highway Information**

*General.*--CR 515 is a two-lane, 12-mile-long, asphalt roadway extending north from SR 23 to the New York State line. It is classified as a Federal-aid secondary highway. It crosses Hardyston and Vernon Townships, both of which are within Sussex County. The accident site is in a rural area 2 miles from the amusement park. The first collision occurred at the intersection of Breakneck Road and CR 515. (See figure 2.)

*Geometry.*--The Vernon-Hardyston Township boundary line is about 3.4 miles south of CR 638. Over the 3.4 miles, the elevation of CR 515 increases by 260 feet, for an average grade of 1.4 percent. At CR 638, CR 515 starts to go downhill; and for 6,000 feet, the downgrade averages 6 percent. For the next 1,300 feet, up to the site of the accident, the downgrade averages 14 percent with some 50-foot-sections averaging 17 percent.

Near the top of the hill at CR 638 is an 800-foot-radius curve to the right followed by a 231-foot-long straight section. The roadway then curves to the left in a compound curve with the first curve radius of 578 feet (385 feet long) and a second curve radius of 1,080 feet (289 feet long). The pavement cross section is crowned with little or no superelevation on the curves. Breakneck Road intersects with the outside of the second curve 145 feet from its beginning. The roadway is straight from the end of the second curve to the final resting position of the bus, a distance of 330 feet. After the accident, the New Jersey Department of Transportation (NJDOT), at the request of the Sussex County Engineer's Office, conducted skid tests at the accident site; and the average longitudinal skid number[8] was 73.

*Signing.*--In 1978, at the request of Vernon Township, the NJDOT assessed whether the speed limit on CR 515 should be reduced from 45 mph to 25 mph. The NJDOT found that the existing signs were inadequate and that new ones were needed to make it clear that trucks and buses must use lower gears and not exceed 20 mph when they are going down the steepest portion of the hill. Such signs were installed shortly after the assessment and are depicted in figure 11.

In October 1979, Vernon Township adopted an ordinance that prohibited trucks with a gross weight of more than 4 tons from using CR 515 south of SR 94. School buses and trucks making local deliveries were exempt from this ordinance. The ordinance was adopted because "...of the number of accidents which have occurred in Vernon Township on this road as a result of heavy trucks going out of control on the steep down grade." The NJDOT approved Vernon's request for new signing and noted that signs must be erected to conform to the current *Manual on Uniform Traffic Control Devices* (MUTCD).

[8]The tire-to-pavement friction coefficient multiplied by 100, for a specified set of test conditions.

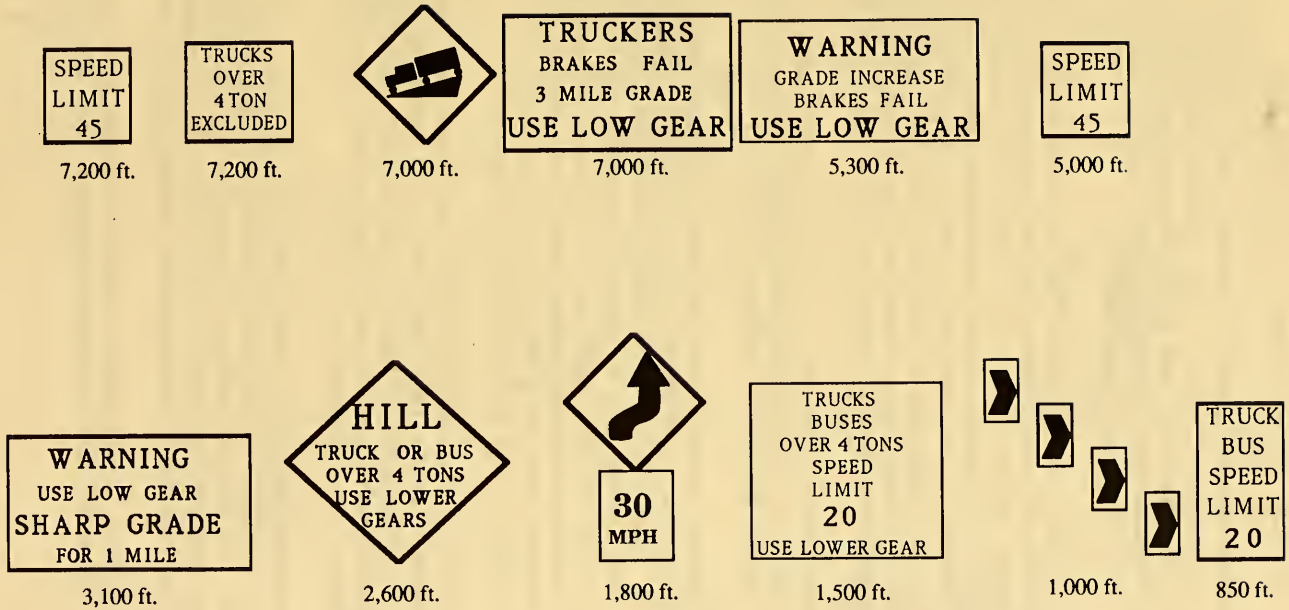
SPEED LIMIT 45
7,200 ft.
TRUCKS OVER 4 TON EXCLUDED
7,200 ft.
7,000 ft.
TRUCKERS BRAKES FAIL 3 MILE GRADE USE LOW GEAR
7,000 ft.
WARNING GRADE INCREASE BRAKES FAIL USE LOW GEAR
5,300 ft.
SPEED LIMIT 45
5,000 ft.
WARNING USE LOW GEAR SHARP GRADE FOR 1 MILE
3,100 ft.
HILL TRUCK OR BUS OVER 4 TONS USE LOWER GEARS
2,600 ft.
30 MPH
1,800 ft.
TRUCKS BUSES OVER 4 TONS SPEED LIMIT 20 USE LOWER GEAR
1,500 ft.
1,000 ft.
TRUCK BUS SPEED LIMIT 20
850 ft.

Figure 11.--Signs before accident.

Section 2C-3, "Placement of Warning Signs," of the MUTCD states:

> Since warning signs are primarily for the benefit of the driver who is unacquainted with the road, it is very important that care be given to the placement of such signs. Warning signs should provide adequate time for the driver to perceive, identify, decide, and perform any necessary maneuver.

The MUTCD also states that a sign marked "Hill" is intended to warn a driver of a hill that has a length, percentage of grade, horizontal curvature, or another physical feature that requires special precautions. When the grade is shown within the Hill sign, the message "X%" shall be placed below the inclined ramp/truck symbol. Supplemental plaques or other appropriate legends and larger signs should be used for emphasis or where special hill characteristics exist. The MUTCD also addresses warning signs for trucks to use lower gear, reverse curve signs, chevron alignment signs, truck weight signs, and speed limit signs, exhibiting replicas to follow and specific information as to when roadway characteristics would warrant such signs.

When the police interviewed the busdriver, he stated that he had not seen the weight limit signs at the beginning of CR 515, but that he had seen the warning signs for the hill. He stated that he was watching the signs to make sure that he stayed on CR 515.

Following the accident, the Sussex County Prosecutor's Office excluded all vehicles over 4 tons or vehicles with more than one rear axle from the portion of CR 515 extending from CR 638 to Breakneck Road. School buses and trucks making local deliveries are still exempt from this requirement. Vernon Township is in the process of adopting an ordinance prohibiting vehicles over 4 tons on CR 515. The NJDOT and Sussex County removed several signs that were in place during the accident and installed other regulatory warning and guide signs. Additionally, new warning signs have been posted and guide sign changes were made on SR 23 that tell vehicles to use SR 94 to get to Vernon and Action Park. (See figure 12.)

*History.*--CR 515 serves as a commuter route for area residents and is used to access several recreational areas in the county. On an average day about 14,000 vehicles use CR 515 up to Breakneck Road, and about 8,000 vehicles use CR 515 between Breakneck Road and CR 638. In Sussex County, the road that has the lowest volume of traffic averages 400 to 500 vehicles per day; the road that has the highest averages 24,000.

Sussex County commissioned a study of traffic and possible improvements for the section of CR 515 between SR 94 and CR 638 because of the amount of traffic and proposed future development in the area. The study was completed in October 1991 and recommended, among other things, intersection improvements at Breakneck Road and CR 638 and a climbing lane. No work has been started concerning the recommendations because of a lack of funding.

*Accidents.*--The Vernon Township police accident reports indicate that on CR 515 from CR 638 to SR 94, a distance of 2 miles, there were 39 accidents in 1991. From January 1 to

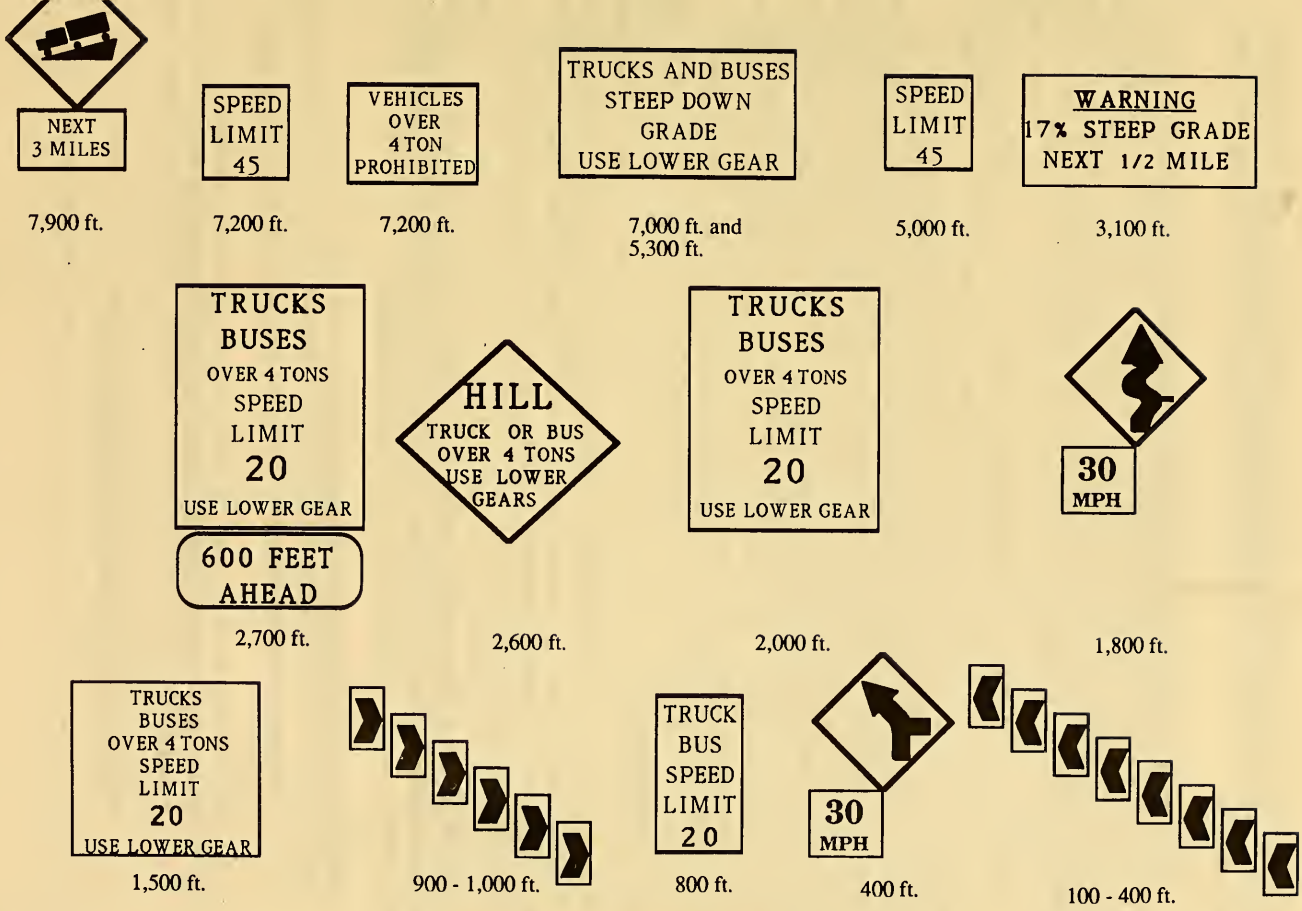


Figure 12.--Signs after accident.

July 26, 1992, there were 17 accidents. Many of the accidents were rear-end or angle collisions in the vicinity of the shopping area just south of SR 94 and single-vehicle deer accidents near Breakneck Road.

Nine months before the Golden Sons accident, a northbound tractor-semitrailer that was loaded with railroad ties overturned while attempting to negotiate the left curve at Breakneck Road. Twelve days before the Golden Sons accident, a gasoline tank truck overturned on the left curve at Breakneck Road, killing the driver. The investigation indicated that while the truckdriver was trying to negotiate the curve, he exceeded the truck's rollover speed.

*Roadway Marks.*--There was a 300-foot-long curving tire mark in the right lane with a parallel mark located about 5 feet to the left the last 80 feet. (See figure 2.) The marks ended where Breakneck Road intersects with CR 515. Another set of curving tire marks continued about 50 feet later: the left mark was 100 feet long, and the right mark was 70 feet long. To the right of this mark was another curving 35-foot-long mark. There were several small sets of scrape marks located after this and one set of 150-foot-long scrape marks curving to the left side of the roadway. There were numerous scrapes and gouge marks, ranging in length up to 50 feet long, in different directions on the roadway, leading up to the final position of the bus. The bus came to final rest in an upright position with its front end facing west and its right front side against the side of the Cavalier. The Cavalier was resting against the southbound side guardrail end, and the bus extended diagonally across the roadway. A fuel spill started about 45 feet south of the final rest position of the bus.

**Motor Carrier Operations**

*ICC Oversight.*--The Interstate Commerce Commission (ICC) is responsible for ensuring the economic fitness of motor carriers that conduct for-hire transportation of certain types of freight or passengers in interstate commerce. Consequently the carrier cannot operate without a grant of operating authority from the ICC.

Not all carriers that are engaged in interstate transportation need ICC authority. Among these are carriers that are not for hire and ones that are for hire but transport commodities, such as unprocessed agricultural products, that the ICC does not regulate.

The ICC can grant three types of operating authority:

1. Emergency temporary authority (ETA), which can remain in effect for as long as 120 days.

2. Regular temporary authority (TA), which can remain in effect for as long as 270 days.

3. Permanent authority, which has no expiration date.

The ICC notifies the public of applications and grants of applications for a TA or for permanent authority by placing notices in the *ICC Register.*[9]

*FHWA Oversight.*--The Federal Highway Administration (FHWA), a part of the U.S. Department of Transportation (DOT), is responsible for establishing and enforcing safety requirements for the operation of commercial motor carriers in interstate commerce, and it provides grants to support and encourage State motor carrier safety activities. The FHWA promulgates and enforces those parts of the Federal Motor Carrier Safety Regulations (FMCSR) that relate to drivers' qualifications and hours of service and to vehicles' equipment and maintenance standards. The FHWA gives safety ratings--satisfactory, conditional, or unsatisfactory--to carriers.

Each carrier subject to the FMCSR must maintain records that are subject to FHWA inspection. The records must be kept at the principal place of business and must include information about insurance, driver qualifications, accidents, hours of service, and brake inspector qualification certifications.[10] Vehicle inspection and maintenance records are also routinely inspected if they are available at or near the carrier's principal place of business. However, if the records are with the vehicle or at another company location, the FHWA may demand that the records be produced.

The FHWA has several ways of identifying those carriers that are subject to its jurisdiction. One is the Form MCS-150 (see appendix F). A carrier that does not have a safety rating must, within 90 days of beginning its operations, file an MCS-150, "Motor Carrier Identification Report," with the FHWA. This form requests such basic information as the carrier's name, principal place-of-business address, telephone number, types of cargo, and the number and types of vehicles operated.

A carrier that changes its name or principal place-of-business address after it has filed an MCS-150 does not have to notify the FHWA. Although some changes may be identified through roadside inspections, safety or compliance reviews, or accident reports, an FHWA witness testified during the Safety Board's public hearing[11] that the FHWA has difficulty keeping track of carriers because they have changed their names or addresses.

The FHWA has other ways of finding the carriers that are subject to its jurisdiction. It can check the list of carriers maintained by the ICC; although according to FHWA records, in

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[9]The *ICC Register* is the daily publication that the ICC uses to notify the public of the ICC's actions. If a carrier applies for or gets a TA or permanent operating authority, the *Register* lists the carrier's name, address, docket number, commodity to be transported, and area of operations.

[10]Some records may be maintained at other locations with specific FHWA permission.

[11]The Safety Board held a public hearing on the Vernon, New Jersey, accident on October 21-22, 1992, in Secaucus, New Jersey.

1992, of the approximately 257,000 carriers the FHWA knew about, only approximately 69,000 were identified as ICC-authorized carriers. The FHWA can check the lists of carriers maintained by those State agencies that have similar motor carrier registration or operating authority requirements. It may find carriers through police accident reports,[12] State or Federal roadside observations or inspections, oversize/overweight permit applications, telephone directory listings, industry association memberships, and complaints from other carriers and the public.

The FHWA keeps track of the carriers that are subject to its jurisdiction on an automated system called the Motor Carrier Management Information System (MCMIS). Each carrier entered on the MCMIS is assigned a unique number called the USDOT number. Each carrier must display on each side of each of its trucks or buses the company name, either the USDOT or the ICC number, and the principal office or terminal city and State.

About 1 million roadside inspection records, 40,000 accident reports, and 25,000 safety and compliance review records are added manually to the MCMIS each year. This system of records, called Safetynet, enables the FHWA field offices, the FHWA headquarters offices, and the States to exchange safety/compliance data.

The FHWA uses the data in the MCMIS as a basis for deciding which carriers should get initial or followup safety or compliance reviews. The agency considers such factors as roadside inspection violations, accident history, types of commodities transported (hazardous material and passenger carriers are given higher priority due to the assessed higher public risk), the size of the carrier, and previous safety or compliance review findings. If a carrier is not listed on the MCMIS, it will not be selected for review unless unusual circumstances call attention to its existence. Examples of such circumstances are a catastrophic accident, a complaint alleging serious violations, or disclosure of a substantial health or safety violation during a roadside inspection.

At FHWA headquarters, private contractors enter carrier identification information onto the MCMIS. In the FHWA field offices FHWA employees enter the information. An FHWA witness testified that the FHWA has no organizational element that has the primary responsibility for systematically checking records of other Federal or State agencies to identify new interstate motor carriers. This witness also indicated that the FHWA and the State field staff are primarily occupied with enforcement cases against carriers not in compliance with regulations.

Several FHWA management officials reported to the Safety Board that their organization is reluctant to enter a carrier on the MCMIS without reasonable assurance that the carrier is conducting operations subject to the authority of the FHWA. This assurance usually comes from

[12]At present, it is difficult to identify carriers through State accident reports; almost all of the reports show only the name and address of the registered owner of a vehicle. In many cases, particularly those involving owner-operators or independent contractors, the registered owner of a vehicle may not be the same as the carrier performing the transportation.

direct contact with the carrier or the receipt of a completed MCS-150 or some other documentation, such as the documentation from a roadside inspection.

According to the FHWA, it needs to verify its jurisdiction over a carrier before it enters the carrier on the MCMIS. Otherwise the agency might review a carrier that is either out of business or not subject to FHWA authority, thus wasting its investigative resources.

The FHWA also administers the Motor Carrier Safety Assistance Program (MCSAP), which helps fund State motor carrier safety inspection activities in those States that have adopted regulations that are the same as or similar to the FMCSR.

Carrier safety and compliance reviews are one of the activities funded by the MCSAP. A safety review is usually performed during the first contact at a motor carrier's place of business and consists of an examination of the motor carrier's safety policies, procedures, and practices to determine whether the carrier has instituted adequate managerial oversight to ensure compliance with the FMCSR.

A compliance review usually is performed after the carrier has been afforded a period of time to correct any deficiencies noted during an initial safety review. However, carriers of passengers and hazardous materials routinely receive a compliance review rather than a preliminary safety review during any initial contact. In addition to reviewing policies and procedures, a compliance review includes an examination of the carrier's safety records, such as driver qualification files, duty status and other hours of service records, and inspection and maintenance records to determine whether previously discovered deficiencies have been corrected.

*ICC/FHWA Exchange of Information.*--The FHWA is responsible for supplying the ICC with safety/compliance records about any carrier that has applied to the ICC for operating authority.

Since the enactment of the 1967 DOT Act (Public Law 89-670), there have been procedures for transmitting the identity of new carriers from the ICC to the FHWA. The law specified that:

> It shall be the duty of the Secretary to promptly investigate the safety compliance records in the Department of each applicant seeking operating authority from the Interstate Commerce Commission . . . and to report his findings to the Commission . . .

On April 3, 1967, the ICC and DOT approved a Memorandum of Understanding and Agreement to formalize the exchange of such information. The latest written modification, which was approved by both agencies in 1982, specifies that when requested by the ICC, the FHWA will report a carrier applicant's safety compliance.

The 1988 revision of 49 CFR, Part 385, "Safety Fitness Procedures," states:

> A copy of the ICC Register is furnished to the FHWA. The FHWA monitors this Register and, when an unrated carrier makes application to the ICC for motor carrier operating authority, the FHWA will attempt to contact the applicant personally for the purpose of initiating a safety fitness review.

According to FHWA witnesses at the Safety Board's public hearing, these procedures are not being followed. Instead the ICC regional offices receiving ETA and TA applications fax the name, address, and MC docket number of each applicant to the FHWA's contractor, who is requested to immediately contact the ICC regional office if any applicant has an "unsatisfactory" safety rating.

*General Information About Golden Sons.*--Golden Sons is owned and operated by the accident busdriver. He has three intercity buses and four drivers. Only two of the drivers were listed with the State of New York. Records show that the carrier has been operating since September 1989. After the accident, the carrier would not provide any of its records--including driver qualification files, vehicle maintenance records, vehicle inspection records, or accident records--to the Safety Board or any other State or Federal agency.[13]

*Federal Actions Concerning Golden Sons.*--In September 1989, Golden Sons applied to the ICC for permanent authority. The application included the certification that the carrier was familiar with and would comply with the FMCSR. The ICC did not grant the authority until December 1990, more than a year later. The delay occurred, according to an ICC witness, because it took some time for Golden Sons to get its insurance on file.

On October 7, 1992, a few months after the accident, the ICC initiated a proceeding to revoke Golden Sons' authority because its insurance had been cancelled. The authority was revoked on April 2, 1993.

*NYDMV Oversight.*--Article 19-A of the New York Vehicle and Traffic Law, also known as "Special Requirements for Bus Drivers," applies to drivers of passenger-carrying vehicles operated in the State of New York. The carrier must sign and file an affidavit of compliance each year certifying that:

> all officers, agents, representatives, and employees responsible for the management, maintenance, operation or driving of motor vehicles, or the hiring supervising, training, assigning, or

[13]On June 2, 1993, the U.S. District Court of New York issued to the busdriver/owner an Order to Show Cause why he should not be compelled to obey the Safety Board's subpoenas. At the time of this report he had not yet been located.

dispatching of drivers for this motor carrier have been instructed in and are in compliance with all provisions of Article 19-A . . .

A carrier that fails to file an affidavit of compliance by July 1 will have its vehicle registrations and privilege of operation in the State of New York revoked.

Under Article 19-A, the carrier must report to the New York Department of Motor Vehicles (NYDMV) Bus Driver Certification Unit within 10 days of hiring or discharging a driver. The carrier must also do the following:

1) Inquire about a driver's operating record in every State in which the driver has been licensed during the preceding 3 years.

2) Require the driver to pass a pre-employment medical examination and a medical examination every 2 years thereafter.

3) Require the following from the driver:
   -an annual review of the employee's driving record
   -an annual defensive driving observation
   -a biennial behind-the-wheel road test
   -a biennial oral/written examination.

The carrier must retain these driver records and make them available upon request to authorized NYDMV employees. A carrier that fails to do so may be cited. After a NYDMV hearing the carrier could face civil penalties and find that its vehicle registrations have been suspended or revoked.

The NYDMV enters the names and social security numbers of the drivers into a computer and checks nightly on their driving records to ensure that they all have valid licenses and are not disqualified under Article 19-A.

In September 1989, the NYDMV suspended Golden Sons' registrations and privilege of operating authority for failure to file affidavits of compliance. They were suspended again in July 1990. In each case, the carrier was reinstated after filing the affidavit. In July 1991, the carrier was again sent a notice of suspension; however, it filed the affidavit 3 days before the suspension became effective.

Although Golden Sons had filed an affidavit of compliance for 1992, the driver of the accident bus was not listed. The NYDMV cited Golden Sons for violations of Article 19-A. The hearing was held on December 1, 1992, in New York city, and on February 11, 1993, Golden Sons was found to be in violation, and its registration plates and privilege of operation were revoked.

The NYDMV is reviewing its procedures for notifying out-of-State carriers of the Article 19-A filing requirements and has determined that it is possible that additional carriers might be identified by using ICC records. In December 1992, the NYDMV asked the ICC for a list of the passenger carriers that were based in the 10 States that the NYDMV believed were the most likely to have carriers regularly transporting tour groups into New York State.[14] After the ICC supplied the list, the NYDMV sent out questionnaires to determine which carriers were subject to Article 19-A. The results are pending.

*NYDOT Oversight.*--The Carrier Certification and Compliance Bureau (CCCB) of the New York Department of Transportation (NYDOT) is responsible for the economic regulation of approximately 2,100 carriers of property and 1,000 carriers of passengers. The CCCB grants intrastate operating authority for commercial motor carriers and is responsible for instituting enforcement proceedings against carriers that violate NYDOT rules. Any motor carrier operating a commercial vehicle for more than 10,000 miles or more than 100 days a year must obtain operating authority from the CCCB. Golden Sons had not obtained authority to operate from the CCCB.

The Commercial Vehicle Safety Bureau (CVSB) within the NYDOT is responsible for truck and bus safety inspections and for issuing oversize-vehicle permits. The CVSB inspects approximately 110,000 buses annually. Of the 110,000, approximately 70 percent, or 77,000, are school buses.

Although the CVSB does roadside inspections of trucks under the auspices of the MCSAP program, it does not conduct roadside inspections of buses under MCSAP. Instead, all passenger buses with a New York registration must pass a CVSB inspection every 6 months.

The inspection must be performed at a facility acceptable to the CVSB. Such a facility typically has an inspection pit or lifts to enable a thorough inspection of the underbody of the bus, including brakes and brake adjustments. At the start of the inspection, any previous inspection sticker is removed. If the bus fails the inspection, it is marked and declared "out of service," meaning it cannot be used to transport passengers (but can be operated on public roadways without passengers) until the deficiency is corrected. If the bus passes the inspection, a sticker is furnished and displayed on the lower right corner of its windshield.

Although a bus cannot transport passengers unless it has passed inspection, the carrier, according to an official, may decide when to present the bus for inspection. An operator who is found transporting passengers without an inspection certificate may receive a notice of violation (NOV), and the bus will be placed "out of service" until it has passed inspection.

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[14]Connecticut, Maine, Massachusetts, New Hampshire, New Jersey, New York, Ohio, Pennsylvania, Rhode Island, and Vermont.

After the Vernon accident, the CVSB checked known pickup/termination points in New York city to determine whether buses loading or unloading passengers at these points had inspection certificates. On one such check, on August 27, 1992, the CVSB checked about 200 buses and found 31 that lacked inspection stickers yet were carrying passengers. The CVSB had made arrangements to have a suitable inspection facility available, and it invited the 31 bus operators to the facility for an inspection. A CVSB official testified that about seven or eight of the bus operators declined. The CVSB allowed them to unload their passengers and drive away.

The CVSB is required to inspect a bus if it is sold or transferred. The NYDMV may register the vehicle and issue the registration plates before the vehicle is inspected if the registrant certifies the following:

> I, the undersigned, state that the information I have given on this application is true to the best of my knowledge. I certify that the vehicle is fully equipped as required by the vehicle and traffic law and has passed the required New York State inspection within the past 12 months or has qualified for a time extension and will be inspected within 10 days. . .

*State Oversight of Golden Sons.*--In 1989, a CVSB inspector noted a Golden Sons bus without an inspection sticker discharging passengers. He issued two NOVs to the bus owner, one for operating without NYDOT authority and one for not having an inspection certificate. The NOVs were sent to the CCCB for enforcement. The bus owner was found guilty on both counts and paid a $100 penalty.

Later that year, the same inspector again saw a Golden Sons bus operating without authority and an inspection certificate. He issued another NOV, which was also sent to the CCCB. The charge of transporting passengers without authority was dismissed after the bus owner stated that at the time his bus was leased to another carrier. The bus owner was fined $250 for operating a vehicle without an inspection certificate. Because he did not pay, the CCCB tried to suspend the bus registration but found that the registration had expired.

On March 22, 1992, the bus owner bought the accident bus from another motor carrier for $6,000. The previous owner, who had bought the bus in 1988, told NYDMV investigators that the CVSB had never inspected it while he owned it.

On April 3, 1992, the owner of Golden Sons applied to the NYDMV to register the accident bus, which did not have an inspection certificate. The NYDMV issued the registration plates because the owner certified that he would have the bus inspected within 10 days.

Three months later, when the accident occurred, the owner had not obtained authority from the CCCB to transport passengers for hire within the State of New York, and he had not had the bus inspected.

*Survey of ICC/USDOT Information Exchange.*—Although the ICC had authorized Golden Sons to begin operations in December 1990, at the time of the accident Golden Sons was not listed on the MCMIS (it was entered on August 11, 1992). To determine whether this omission was an isolated instance, the Safety Board obtained a list from the ICC of the more than 15,000 carriers of all types to which it had granted operating authority between 1988 and 1991.

The Safety Board randomly selected 632[15] passenger carriers from the group of 15,000 carriers and asked the FHWA how many of them were listed on the MCMIS as of August 11, 1992. At the Safety Board's public hearing, a FHWA representative testified that 291 had not been entered on the MCMIS and that 341 were.

The FHWA representative testified that the reason some carriers were not listed on the MCMIS may have been because "in the early '80s" the FHWA had stopped examining the *ICC Register* for permanent-authority applications. Therefore, a carrier that filed only a permanent-authority application would not be identified. In addition, some of the carriers not listed on the MCMIS may not have ever conducted any interstate operations or may have gone out of business before the FHWA learned of their existence.

After the Safety Board's public hearing, the FHWA surveyed the 291 carriers that had not been entered on the MCMIS. The FHWA subsequently reported that:

Two hundred and six carriers were conducting operations subject to the FHWA.

Six carriers were listed after the Safety Board's survey was initiated.

Fifty-seven were out of business; whether these carriers had ever conducted operations subject to the FHWA was not reported.

Twenty-two were conducting only intrastate operations.

In summary, of the sample of 632 carriers that the Safety Board selected from the ICC list of carriers to which it had granted authority, at least 553 or 87 percent should have been listed on the MCMIS.

The FHWA also began to check the rest of the 15,000 ICC-authorized carriers to determine if they were listed on the MCMIS. About 9,407 were not. The FHWA sent them MCS-150s. As of March 8, 1993, 4,660 of the forms had been returned. Of these:

40 percent came from carriers that should have been listed on the MCMIS;

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[15]A Safety Board statistician indicated that this sample size and distribution would yield a 95-percent confidence level with a plus or minus 4-percent margin of error.

3 percent came from carriers that were not subject to FHWA jurisdiction and therefore should not have been listed on the MCMIS;

2 percent were from carriers that were out of business, deceased, or no longer conducting interstate operations;

22 percent were returned as undeliverable at the address listed; and 34 percent were returned with incomplete data. (The FHWA is continuing its efforts to identify these carriers, and the remaining 4,747 that have not yet returned MCS-150's).

*Survey of State and Federal Information Exchange.*--The FHWA reported that each FHWA region and each FHWA State field office within a region is responsible for identifying State record systems within that region that could be used to identify carriers subject to FHWA safety oversight and for entering carriers obtained from these systems onto the MCMIS.

Of the 291 carriers known to the ICC but not listed on the MCMIS, the Safety Board's investigation disclosed that Golden Sons and 26 others were based in the State of New York. The accident bus had been registered in the State of New York in April 1992. The NYDMV and the NYDOT had other ways as well of knowing of the existence of Golden Sons before the accident: the NYDMV through Golden Sons' Article 19-A filing in 1989 and the NYDOT because the owner of Golden Sons had been cited twice in 1989 both for operating without authority and for operating uninspected buses while transporting passengers.

As for the other 26 ICC-registered carriers not listed on the MCMIS, 18 were known before the accident by the NYDMV through Article 19-A filings, and 11 had been granted intrastate for-hire passenger authority by the NYDOT.

**Previous Safety Board Findings and Recommendations**

The Safety Board has investigated several accidents that involved interstate motor carriers that were unknown to the FHWA, and it has issued recommendations about the subject to the FHWA.

In 1977, a tractor-semitrailer struck the rear of a stopped school bus.[16] Three of the 32 passengers on the school bus died. The other passengers and the busdriver sustained injuries ranging from bruises to fractures. The truckdriver sustained chest injuries. The Safety Board determined that the probable cause of the accident was the failure of the truckdriver, due to inattention and carelessness, to perceive and avoid the school bus.

[16]For further information, see Highway Accident Report--*Tractor-Semitrailer/School Bus Collision and Overturn, Rustburg, Virginia, March 8, 1977* (NTSB-HAR-78-01).

During its investigation of the accident, the Safety Board determined that the carrier, in compliance with a requirement in effect at the time, had registered with the ICC as an agricultural cooperative association conducting interstate motor carrier operations. Since the carrier was conducting interstate operations, it was subject to the FMCSR. The Safety Board determined that the truckdriver had failed to make a record of duty status (daily log) and had an expired medical examiner's certificate. The FHWA was unaware of the carrier's existence even though the ICC had registered it several years before the accident. At the time of the accident, 159 additional cooperative association motor carriers were also ICC-registered but were unknown to the FHWA.

In its report of this accident, the Safety Board stated:

> The ICC has records of carriers who are unknown to the [FHWA]. All carriers operating vehicles in interstate commerce are required to comply with the FMCSR and should be known to the [FHWA]. Some procedure which would inform the [FHWA] of the identity of carriers, vehicles, and drivers under its jurisdiction is needed. This would enable the [FHWA] to serve these carriers and owner-operators with the safety regulations and make them aware of their responsibilities under the FMCSR. It would also provide the [FHWA] with more accurate information concerning carriers to be supervised and inspected, and enable it to budget and plan for a more effective and efficient safety program.

The Safety Board issued Safety Recommendation H-78-13 to the FHWA:

> Request from the Interstate Commerce Commission the identity and categories of all current ICC-registered carriers operating in interstate commerce and of future registrants as soon as possible following their registration.

Five months later, the FHWA notified the Safety Board that the ICC would give the FHWA copies of new carrier notification forms as they were received and that FHWA and ICC records would then correspond and be kept current. As a result of the FHWA's response, the safety recommendation was placed in a "Closed--Acceptable Action" status.

Also in 1977, the driver of a truck towing a flatbed utility trailer loaded with a backhoe lost control of the vehicle.[17] While the vehicle was negotiating a curve at a high speed, the backhoe broke away, vaulted into the opposing lane of the two-lane, undivided roadway, and collided with a van. Five occupants of the van were killed, and two were critically injured. The Safety Board determined that the brakes on the trailer had been inoperative because of inept and inadequate maintenance.

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[17]For further information, see Highway Accident Report--*Ford Construction Company Truck-Semitrailer/Dodge Van Collision, Marion, North Carolina, May 12, 1977* (NTSB-HAR-78-03).

Since the motor carrier was operating its truck in interstate commerce, it was subject to the FMCSR. During its investigation, the Safety Board determined that the FHWA had never informed the carrier of its responsibility to comply with the FMCSR and that both the driver and the vehicle did not conform to the FMCSR. The Safety Board issued the following recommendations to the FHWA:

> Establish a procedure that will serve to identify all carriers, vehicles, and drivers under Federal Highway Administration jurisdiction. (H-78-40)
>
> Establish a procedure that will serve to inform all carriers and drivers under Federal Highway Administration jurisdiction of their responsibilities in regard to the Federal Motor Carrier Safety Regulations. (H-78-41)

In its response to Safety Recommendation H-78-40, the FHWA reported that all carriers granted operating authority by the ICC are identified as a result of communications established between the FHWA and the ICC, as well as through roadside driver/equipment inspections and noise compliance checks, but that "any program to identify all drivers and vehicles used in interstate commerce is infeasible at current staffing and funding levels."

Regarding Safety Recommendation H-78-41, the FHWA responded that the FMCSR itself informs carriers and drivers of their Federal safety responsibilities. The FHWA proposed that its regional staff review State entry and registration requirements for carriers. The Safety Board responded that the proposal to review State entry requirements was a positive first step but that:

> The NTSB believes the issue of driver awareness of and compliance with FMCSR to be extremely important; and we, therefore, will hold these recommendations open and address the issue whenever the opportunity presents itself. We do not believe a statement of the status quo to be an acceptable solution to the problem. We encourage the FHWA to seek ways and means to monitor the activities of drivers involved in interstate commerce through registered carriers, through State agencies, or through an increased effort.

The FHWA responded:

> We share [the NTSB's] interest in seeking ways and means to create an even greater driver awareness of our regulations than we now have. One such effort to achieve this objective will be through our safety inspection and weighing demonstration program. . . . We feel that through State agencies the implementation of our program will be enhanced.

On May 15, 1979, the Safety Board notified the FHWA that it would keep Safety Recommendations H-78-40 and H-78-41 open as it observed the effect of the new FHWA

programs for working with the States in reviewing their entry and registration requirements and for safety inspection and weighing. The Board also asked that the FHWA tell it how many carriers were identified through the inspection and weighing demonstration program. On December 21, 1984, the FHWA notified the Safety Board that this program had identified 37,093 new carriers between 1979 and 1982.

Another accident involving issues of carrier identification happened in 1983. A National Railroad Passenger Corporation (Amtrak) train struck a tractor-lowboy semitrailer combination truck at a grade crossing in North Carolina.[18] Fourteen of the train's occupants were injured, and several cars were derailed. The truck and the paving machine it was transporting were destroyed. Estimated property damage exceeded $623,000.

The truck had been transporting the paving machine from New Jersey to Florida. Because the truck was overweight, the carrier had obtained a special permit from North Carolina authorizing operation of the vehicle on a specified North Carolina highway with a gross weight not to exceed 103,000 pounds. The truck weighed 105,820 pounds, and the driver reported that the carrier had instructed him to avoid weighing stations in North Carolina. The Safety Board determined that the probable cause of this accident was the deliberate deviation of the truckdriver from the route prescribed on the North Carolina permit and an ensuing detour onto a railroad/highway grade crossing that the truck was not high enough to clear.

The truckdriver had a chauffeur's license from Florida that had been suspended. His medical examiner's certificate had expired. He was not maintaining a record of duty status, and he was driving more hours than the FMCSR allows.

Although the carrier, which was based in Florida, had a standing oversize/overweight Florida permit and had obtained trip permits from North Carolina, New Jersey, Pennsylvania, Maryland, Virginia, South Carolina, and Georgia, the FHWA was unaware before the accident that the carrier was conducting interstate operations. Therefore the FHWA had not entered the carrier in the MCMIS. When Safety Board investigators spoke to the carrier's owner, he stated that he was not aware that he was subject to the FMCSR since he only occasionally engaged in interstate commerce.

On December 12, 1983, the FHWA audited the carrier and found that in addition to not reporting an accident, it had not maintained driver qualification files, required its drivers to prepare duty status records, or kept inspection and maintenance records on its equipment. During the audit the carrier's owner stated that he did not intend to perform any future interstate operations.

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[18]For further information, see Railroad/Highway Accident Report–*Collision of Amtrak Train No. 88 with Tractor Lowboy Semitrailer Combination Truck, Rowland, North Carolina, August 25, 1983* (NTSB-RHR-84-01).

Later that month, one of the carrier's units was found in North Carolina transporting a pavement roller from Florida to Maryland. The driver did not have a medical examiner's certificate and was not preparing a record of duty status. He admitted to being aware of the requirements but said that he was not complying because the carrier had never told him to do so.

As a result of its investigation, the Safety Board issued Safety Recommendation H-84-68 to the FHWA:

> Develop additional information sources through which motor carriers engaged in interstate commerce can be identified and placed expeditiously into the automated management information system (MIS).

The FHWA responded that it could gather the information through the MCSAP's State roadside inspections. As a result of this response, the Safety Board classified the safety recommendation as "Open--Acceptable Action." Because Safety Recommendation H-84-68 in substance repeated Safety Recommendations H-78-40 and -41, the Safety Board classified them as "Closed--Superseded." The Safety Board also said:

> We believe FHWA's programs should emphasize working with the States to use their entry and registration data more effectively. . . We urge you to concentrate additional effort on utilizing State records to enhance the identification program as you continue to respond to H-84-68.

In 1986, the FHWA further responded to the safety recommendation by stating:

> In FY '86, we have 38 States in [MCSAP] implementation grant status, which will generate a much greater listing. It is our goal to have a fully operational transmission of data by FY '88, including procedures for addressing carrier identification files. This system will fully support SR H-84-68, since any motor carrier previously unknown to the Federal MIS will be identified by individual State inspection and added to the Federal system.

In response, Safety Recommendation H-84-68 was classified as "Closed--Acceptable Action."

**Medical and Pathological Information**

The fatal injuries sustained by 6 of the 12 ejected passengers included skull fractures, brain injuries, multiple internal injuries, and fractured extremities. The other ejected passengers sustained injuries ranging from minor to critical, including fractures, bruises, abrasions, and internal injuries. The remaining 37 passengers sustained injuries ranging from minor to critical, including bruises, abrasions, and burns.

The busdriver, who had also been ejected, sustained multiple internal injuries, a bruised heart, and fractured legs.

The driver of the Reliant sustained a fractured rib and sternum and chest contusions. The driver of the Cavalier sustained abrasions to the right knee; the passenger was uninjured.

**Survival Factors**

The busdriver and the ejected passengers were seated in the front rows of the bus. Some of the passengers exited through the right side windows near the rear of the bus while most exited through the large opening the accident had created at the front of the bus. The bus had a rear exit window; however, the window was blocked. The seats in the right row were distorted; however, none had come loose. The luggage racks remained in place except for those in the front.

**Emergency Response**

Twelve volunteer ambulance services, two volunteer fire departments, and three medivac helicopters responded. The injured were taken to seven hospitals, including a trauma center and a burn center. The State and local police responded for traffic control and investigation.

Triage was performed; however, no triage tags were available, and the severity of the injuries was not documented at the scene. The fire department established a command post at 11:30 a.m. and initiated an incident command system in which the emergency medical services (EMS) did not participate. EMS officials stated that they could not spare experienced medical personnel for duty at the command post. No officer was assigned to direct patient transportation. Personnel at the scene were dispatched to gather medical supplies from ambulance stations because the small medical kits that the volunteers kept in their personal vehicles were insufficient to treat the injured. EMS officials reported that their own communication was disorganized because radio channels were overloaded and messages were inaudible, hindering communication with other on-scene agencies.

**Other Information**

*Tests.*--On March 9, 1993, the Safety Board conducted tests at the accident site to determine the amount of braking a comparable bus that has properly adjusted and functional brakes needs to descend the hill. An empty 1972 Eagle intercity bus with a V-8 diesel engine and a Spicer Model 8844 4-speed standard transmission was used. The test bus was driven down the hill in second gear at about 24 mph,[19] and the driver stated that he used light[20] braking

[19]Police used radar to obtain speed estimates and corroborate the bus speedometer.

throughout the run. The bus was then driven down the hill in third gear at about 28 mph, and the driver stated that he used light braking at the beginning of the downgrade and medium braking on the last section.

*Occupant Restraints on Intercity Buses.*--Between 1968 and 1972, the Safety Board investigated eight major intercity bus accidents in which the need for occupant restraints was reviewed. As a result, the Safety Board issued 10 safety recommendations to the FHWA and to the National Highway Traffic Safety Administration (NHTSA) asking them to amend the *CFR* to require the installation of occupant restraints. The two agencies refused on the grounds that so few people on buses will use belts and so few people are killed in bus accidents that the cost of installing the belts outweighs the benefit. The agencies also argued that there is little evidence that lapbelts significantly reduce or mitigate the injuries of passengers and that in many buses, belt installation is impractical because of retrofit problems.

According to a 1979 FHWA study, lapbelts for old and new intercity buses are worthwhile only if they are used 100 percent. The report also states if the first two rows of seats have lapbelts and if 47 percent of the riders use them, the cost benefit ratio is 1:1. Studies show that intercity bus passengers would use a seatbelt much less than that.

A 1977 FHWA report[21] did not recommend requiring intercity buses to have lapbelts. The report did, however, recommend optimizing the energy absorbing restraining barriers in front of the first seat on each side of the bus. In 1988 the Safety Board reclassified its latest safety recommendation (H-73-42) requiring bus passenger restraint as "Closed--Reconsidered."

Between 1985 and 1991, the Safety Board investigated 11 intercity bus accidents in which a total of 53 bus occupants were killed. Thirty-two of the people who were killed had been ejected. Yet NHTSA'S Fatal Accident Reporting System (FARS) reported that only 22 occupants were ejected and fatally injured in accidents during the same period.

## ANALYSIS

### General

Based on the available evidence, the Safety Board concluded that neither the weather nor the pavement contributed to the accident. The weather was clear and dry, and no pavement problems were noted. The busdriver was not impaired by fatigue, alcohol, or other drugs. He

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[20]The terms designated to describe amount of braking were light, medium, and heavy. After the tests, based on driver comments and air pressure readings, it was determined that "light" brake pressure meant 5 to 14 psi, and "medium" brake pressure meant 15 to 25 psi.

[21]"Analysis for Need for Passenger Safety Belt Requirements in Intercity Buses," September 1977, the Institute for Research in Public Safety at Indiana University for the Federal Highway Administration, U.S. Department of Transportation.

stated that he had slept all night, and no alcohol or other drugs were found during the toxicological tests.

The Safety Board considered the following possible causal factors for the accident:

1) the deteriorated braking efficiency of the bus;

2) the busdriver's initial gear selection when he descended the hill and his subsequent attempt to downshift during the descent;

3) the ability of properly adjusted and functional brakes to control the bus when it was in the gear used by the driver while he was descending the hill;

4) the adequacy of New York State commercial vehicle inspections and safety/compliance reviews.

Other issues addressed by the Safety Board in this report include Federal motor carrier identification, highway signing, occupant restraints on intercity buses, survival aspects, and emergency medical service.

**Accident**

Based on the physical evidence and on the statements of the driver and witnesses, the Safety Board believes that the bus began the descent of CR 515 at a speed of 40 to 45 mph. During the descent, the driver applied his brakes; nonetheless, witnesses indicated, the bus began to gain speed. When he attempted to control his speed by downshifting to second gear, the Safety Board believes, he was unable to engage second gear and placed the bus in neutral.

Tire marks indicated that as he entered the left curve at the intersection of CR 515 and Breakneck Road, the bus began to yaw[22] counterclockwise. The bus then struck the Reliant at the intersection and continued to yaw counterclockwise, subsequently overturning onto its right side. After overturning, the bus slid on its right side, and its front struck a rock embankment on the southbound roadside. The bus then spun 360 degrees counterclockwise, uprighted itself, and struck the Cavalier. The bus and the Cavalier came to rest perpendicular to the roadway against the end of a guardrail, and a fire began.

[22]A sidewise movement of a vehicle in turning; movement of a vehicle in another direction than that which it is headed; sidewise motion produced when centrifugal force exceeds traction force. This definition comes from *The Traffic Accident Investigation Manual*, 1986, which was written by J. Stannard Baker and Lynn Fricke.

**Bus Speed Estimates**

To determine the approximate speed of the bus during the collisions, the Safety Board calculated four speeds: acceleration speed, critical speed from the tire marks, overturn speed, and speed while sliding sideways. The calculations were based on assumptions about the lateral coefficient of friction for the bus tires and for aluminum sliding on asphalt, the degree of tire and suspension compression, the grade and cross slope of the roadway, the location of the center of gravity in the loaded bus, acceleration rates, and the braking efficiency of the bus.

The acceleration speed estimate, assuming a base speed of 45 mph at the intersection of CR 515 and CR 638 without braking or engine retardation, indicated that the bus reached 72 mph at the beginning of the yaw marks. However, based on the radius, grade, cross section, and coefficient of friction from skid trailer tests modified for heavy vehicle tires and loads, critical speed calculations suggest that the bus was traveling 67 mph at the beginning of the yaw marks. Using the center of gravity for a loaded bus, adjusted for tire and suspension compression and grade, the estimated minimum speed at which the bus would overturn was 56 mph. Finally, speed calculations based on the bus sliding sideways along the roadway indicate a speed of 60 mph when the bus began sliding on its side. The overturn and sliding calculations do not include the loss of speed that resulted from the bus colliding with the car, trees, and rocks; therefore, the 60 mph estimate is low. The Safety Board concludes that the bus was traveling about 60 mph when it struck the first car.

**Vehicle Condition**

The postaccident examination revealed numerous deficiencies throughout the brake system. The drive axle brakes were the only functional brakes on the bus, and even they were out of adjustment. The investigators calculated that the cold braking efficiency[23] of the bus was about 38 percent.

During the accident, however, the application of the brakes generated heat. The heat caused the brake drums to expand, increasing the distance that the brake linings needed to move to contact the drum and requiring a longer pushrod stroke to remain in contact. The drive axle brakes were the only functional brakes and because they had insufficient reserve pushrod stroke available, when the brakes became heated, braking capacity diminished. Additionally, there were no indications of braking tiremarks on the roadway.

The extent of the deficiencies indicates very little maintenance performed on the vehicle before the accident. The brakes were missing hardware, loose, out of adjustment, and worn. The air chambers were corroded and leaking, as were the air and grease seals, so the components around the brake assemblies were contaminated. The reverse idler and the reverse gear were

[23]The efficiency of brakes that have not been affected by the frictional heat generated during brake applications.

excessively worn. Although the clutch assembly and the transmission were in good condition, the clutch linkage was so loose that it would have been difficult to fully disengage the clutch when changing gears. The air reservoir tanks contained water, and the structural integrity of the bus had been degraded by severe corrosion. The deficiencies found were indicative of long-term neglect and did not occur during the accident. Based on all of the deficiencies discovered in the postaccident examination, the Safety Board concludes that the accident bus had not been adequately maintained and was not fit for service.

**Busdriver Performance**

According to the manufacturer's specifications, the maximum within-gear speed for second gear was 30 mph. Witnesses stated that when the bus crested the hill it was going between 40 and 45 mph. Consequently, the Safety Board concludes the driver began descending the hill in third or fourth gear.

Although the driver stated that he had downshifted into second gear during the descent, the postaccident examination showed that the transmission was in neutral. Because the bus was traveling at least 10 mph faster than the maximum within-gear speed for second gear, the driver could not have engaged second gear. The Safety Board concludes that the bus was going too fast for the driver to be able to shift into second gear and that when he tried to, he instead shifted into neutral. With the bus in neutral, the engine and transmission were unable to help retard the speed of the bus.

The driver stated that he had been driving commercial vehicles for 8 years. Two weeks before the accident, he had passed both written and behind-the-wheel road tests and had correctly answered the test questions about traveling downhill. Additionally, the New York *Commercial Driver's Manual* addressed the issues of shifting gears, controlling speed, and mountain driving, stating: "Be in the right gear before you start down the hill." The driver had the manual before and while taking the mail-in CDL test. He indicated that he had seen the warning signs concerning the hill. The Safety Board concludes that he knew or should have known that he needed to downshift to second gear before descending the hill; however, he failed to do so.

Safety Board tests revealed that a driver in an empty bus can successfully descend the hill on CR 515 in third gear by using light to medium braking if the brakes are functional and properly adjusted. The Safety Board believes that even a loaded bus, which requires more braking, can successfully descend the hill in third gear if the brakes are properly adjusted and functional. The brakes on the accident bus, however, were extremely deficient. Therefore, the Safety Board concludes the accident bus could not have negotiated the hill in third gear.

Safety Board test results indicated that second gear would have been the most appropriate gear in which to descend the hill. The tests revealed that an empty bus that has properly adjusted and functional brakes needs light braking to descend the hill in second gear. Thus, a loaded bus equipped with properly adjusted and functioning brakes would have required light to medium braking to descend the grade in second gear. However, because the brakes were extremely

deficient, the Safety Board could not determine whether the accident bus brakes could have provided the light to medium braking needed for second gear.

The driver took the bus for repairs the week before the accident and was told that it needed new brakes. When he retrieved the bus, the mechanic told him that the brakes had not been repaired, that the bus was in "bad shape" and needed the repairs, and that he should "take it easy." The postaccident examination confirmed the mechanic's assessment of the condition of the bus. Although the driver apparently tested the brakes before the accident trip by braking at a low speed on a level surface, such a test would not have revealed their true condition.

Witnesses stated that during the trip, the driver was grinding gears, smoke was seen at the rear of the bus, and the bus emitted an unusual odor just before it descended the hill. The sound of grinding gears during the trip can be attributed to the loose clutch linkage or to the fact that the speedometer was not working, making it difficult for the driver to gauge his speed accurately enough to shift gears smoothly. However, a bus passenger stated that the driver seemed to have problems with the brakes throughout the trip and was using the transmission rather than the brakes to stop the vehicle. He also stated that the bus stopped in a jerky manner. Furthermore, when the driver needed to stop because he had missed the turnoff for CR 515, he, according to witnesses, repeatedly applied the brakes. After the accident, he said that he had not had any problems with the brakes during the trip.

Individually each event involving the brakes may not have been significant; collectively, they should have been sufficient to warn the driver about the condition of the brakes. Therefore, the Safety Board concludes that the driver had enough warning that the bus brakes were not functioning properly.

Although the driver knew about the deficient condition of the brakes and the bus, he chose to operate the bus anyway. Since 1989, he had shown deliberate disregard for safety requirements. He had failed to file affidavits of compliance with the NYDMV, to obtain operating authority from the NYDOT, to file an MCS-150 with the FHWA, to have the NYDOT inspect his buses, and to pay a fine. Also, although he had owned the accident bus for 4 months, he had not repaired it despite its numerous deficiencies. Therefore, the Safety Board concludes that the driver chose to operate the bus without first repairing the brakes and other known major deficiencies.

**State Oversight**

After purchasing the accident bus in late March, the driver registered it and received registration plates from the NYDMV despite the lack of a CVSB inspection certificate because he certified that the bus was equipped as required by New York's Vehicle and Traffic Law and that he would have it inspected within 10 days. He did not do so. Given the mechanical deficiencies found during the postaccident examination, the bus would not have passed inspection. The Safety Board concludes that although the State of New York had sufficient indications that

Golden Sons was not in compliance with State or Federal safety requirements, it did not inspect or review the carrier's operations and vehicles.

It does not appear to the Safety Board that Golden Sons' failure to present the accident bus for inspection was an isolated instance. A spot check after the accident revealed about 31 other buses without CVSB inspection certificates were transporting passengers. The Safety Board, therefore, concludes that issuing registration plates to a bus upon certification that it will be inspected within 10 days does not adequately deter uninspected and unsafe buses from operating. The Safety Board believes that the NYDMV should not issue registration plates for a commercial vehicle capable of transporting passengers until the vehicle has passed inspection. Further, the Safety Board believes that the American Association of Motor Vehicle Administrators should ascertain which States do not require mechanical inspections of commercial vehicles capable of transporting passengers before issuing registration plates and then recommend that those States issue registration plates only after the vehicle has passed an inspection.

The NYDOT does not routinely conduct roadside bus inspections. Instead it inspects buses at the request of the motor carriers at prearranged times and locations. Because the accident bus was operating without an inspection certificate and because the inspections conducted after the accident indicated that other vehicles were also operating without inspection certificates, the Safety Board concludes that the NYDOT does not adequately ensure that buses subject to its jurisdiction are inspected.

In addition, the NYDOT permits a bus operator who is found to be transporting passengers without an inspection certificate to unload the passengers and drive away without having the bus inspected. The practice does not discourage the operator from conducting future operations using uninspected buses and thus poses a potential safety hazard, not only to the passengers, but also to other users of the roadway as well.

The Safety Board believes that the NYDOT should conduct periodic roadside inspections in order to identify buses that are not fit for service. As with the trucks that fail roadside inspections and are placed out of service, buses that fail roadside inspections should not be allowed to operate until deficiencies are corrected. However, the Safety Board recognizes the inconvenience and potential hazards that roadside inspections may cause for passengers and encourages the State to consider passenger concerns while performing these inspections.

The State of California for example, in addition to inspecting buses at the carrier's terminals, also conducts periodic roadside inspections either at destinations or en route. When conducting destination inspections at such locations as Disneyland or a ball park, the passengers are away from the bus, and there is sufficient time to have a bus repaired if necessary. When en route inspections are conducted at rest areas or at scale inspection facilities, portable ramps are used to conduct the inspections, and portable bathrooms and food wagons are brought to the site to service the passengers. Usually, the delay to the passengers is approximately 20 minutes. Other States, such as New Jersey, Michigan, and Nevada, are starting to conduct roadside bus inspections.

Under MCSAP, the FHWA is in the process of delegating the duties of conducting motor carrier safety/compliance reviews to the States. Currently, 44 States are performing safety/compliance reviews, and in FY '91, the States reviewed 9,500 carriers. As of February 1, 1993, New York had conducted 38 reviews. The Safety Board believes that safety/compliance reviews are an effective method to oversee a motor carrier's operations. In addition to conducting roadside bus inspections, the State should give high priority to conducting safety/compliance reviews of passenger carriers, whether under the MCSAP or its own established programs.

The Safety Board is aware that the two major bus industry associations are extremely concerned about safe bus operations and believes that their member bus operators can help the New York authorities find operators who are not complying. The Safety Board believes that the American Bus Association and the United Bus Owners of America should notify their members of the facts and circumstances of this accident and urge them to notify the appropriate authorities of any suspected safety violations or uninspected buses.

**Federal Identification of Interstate Carriers**

The Safety Board believes that the FHWA has been diligent in its oversight functions concerning the MCSAP, its chosen criteria and followup of safety/compliance reviews, and various other safety activities, such as training, for which it is responsible. Delegating the responsibility for conducting safety/compliance reviews to the States will expose more carriers to this level of oversight. However, previous investigations have identified a gap in the FHWA's system of identification. Although the FHWA believed that this problem had been mitigated through State MCSAP inspections, this investigation and the random sampling show that a large gap still exists in the present system of motor carrier identification.

In order to ensure that all of the oversight activities conducted by the FHWA are effective and to gauge the usefulness of these activities and set further goals for the agency, it is essential that the FHWA identify the entire motor carrier population subject to its jurisdiction. The Safety Board realizes that the FHWA has limited resources and relies on the States to assist in the oversight and enforcement of the safety regulations. The States must also be responsible for motor carrier oversight, including the identification of motor carriers, within their States.

Golden Sons was operating in interstate commerce and, therefore, was subject to the rules and regulations promulgated by the FHWA. The FHWA was unaware of Golden Sons' operations; consequently there was no Federal safety oversight of this carrier. The Safety Board believes that the FHWA cannot oversee the motor carrier industry without timely and accurate identification of the motor carrier population. Otherwise, the FHWA cannot ensure that motor carriers will be appropriately scrutinized.

The FHWA should have discovered from the *ICC Register* that Golden Sons had authority to conduct interstate operations. The FHWA should then have entered the information on the

MCMIS so that the carrier would be included in the selection process for a compliance review. Had the FHWA reviewed Golden Sons, it probably would have been rated unsatisfactory.

*Importance of MCMIS.*—The Safety Board believes that the FHWA should assign a high priority to identifying carriers. Currently, the FHWA has conducted safety/compliance reviews of approximately 41 percent of the identified motor carrier population. If a carrier is not listed on the MCMIS, it is not likely to be selected for a safety or compliance review, which the Safety Board believes is one of the most effective oversight activities that the FHWA and the States can perform.

If the carrier population is underestimated, the elements of Government that are responsible for allocating resources to the FHWA for its safety program, as well as the FHWA itself, cannot realistically estimate the resources necessary to achieve any specified or desired level of oversight. If the size of the carrier population is unknown, it is not possible to know what percentage of the population is being reviewed by the FHWA. Inaccurate population data may also seriously hamper any attempt to improve the effectiveness of such programs as the MCSAP or Safetynet.

*Improving Use of MCS-150.*—After a carrier files an MCS-150, it does not have to update the form if it changes its name or address. The FHWA may, as a result, "lose" such a carrier or inadvertently assign it more than one USDOT number, which in turn could result in the data about the carrier being scattered among several separate files. Thus the safety and compliance review selection process could be hindered, and it becomes advantageous for a carrier with an unsatisfactory rating to avoid updating its MCS-150.

Requiring a carrier to notify the FHWA of any changes in its name, address, and operations would not impose an undue burden on it. Such a requirement could be helpful in locating carriers using a minimum of resources, in enhancing the safety and compliance review selection process, and in improving the FHWA's administration of its rules. Therefore, the Safety Board believes that the FHWA should require any carrier that changes its name or principal place-of-business address to update its MCS-150 promptly.

*Systematically Accessing State Records.*—Some carriers may not be aware that they must file an MCS-150, and some of those that are aware may ignore the requirement in an effort to avoid FHWA oversight. Simply reviewing the ICC's data is not sufficient. Only about 26 percent of the known carrier population is registered with the ICC; the other 74 percent is subject only to the MCS-150 filing requirements.

In 1984 the Safety Board recommended that the FHWA use State records to enhance its carrier identification program. In response to this recommendation the FHWA maintained that MCSAP roadside inspections would adequately identify any previously unknown carriers as a result of this accident. It is clear that MCSAP inspections alone are inadequate to identify all motor carriers.

The FHWA could have identified Golden Sons from ICC records; it also could have identified it from New York records because two State agencies, the NYDMV and the NYDOT, knew about the carrier, as they knew about the majority of the other ICC-authorized New York-based carriers chosen for the Safety Board's random sample.

As a result of Vernon and other accidents, the NYDMV obtained a list of passenger carriers from the ICC and instituted procedures to identify those out-of-State passenger carriers that may be subject to the Article 19-A certification requirement.

The Safety Board believes that the NYDMV's assertive stance in instituting carrier identification procedures will improve its ability to identify motor carriers and, in turn, improve safety oversight. Further, the Safety Board believes that the FHWA should institute similar procedures and survey each State's record systems to determine which can be used to identify interstate motor carriers. Such sources should be systematically and regularly consulted to identify carriers and enter them on or remove them from the MCMIS.

*Eliminating Unnecessary Verification Practices.*--The Safety Board finds it inconsistent that the FHWA believes that it is necessary to verify the accuracy of data obtained from outside sources before it enters a carrier onto the MCMIS, but does not systematically verify the data already on the MCMIS. The Safety Board believes that data about a carrier that has been recently authorized by the ICC or recently entered on State records is much more likely to be accurate than data that has been on the MCMIS for several years.

At least 87 percent of the Safety Board's sample of ICC-authorized passenger carriers were or should have been entered on the MCMIS. The ICC records appear to be reasonably reliable about which motor carriers are active. The FHWA's need to verify the accuracy of the data before entering it onto its system seems unfounded, at least for data from the ICC. The Safety Board believes that the fact that up to 13 percent of the ICC carrier population should not be entered on the MCMIS does not justify the FHWA delaying the entry of the data about the rest of the ICC population. The Safety Board believes that from a safety perspective, entering the carriers on the MCMIS and thereby exposing them to the FHWA's safety oversight is far more important than attempting to verify the accuracy of the data in advance. However, the Safety Board believes that the FHWA should continue to verify the accuracy of the data once the carriers are placed on the MCMIS.

As the FHWA gains experience with each State system, it should be able to determine how reliable each data source is in identifying those carriers subject to FHWA oversight. The Safety Board believes that the FHWA should discontinue the practice of verifying identification data from other sources before entering them onto the MCMIS if experience indicates that such data are usually reliable.

*Previous Safety Board Findings and Recommendations.*--The FHWA's failure to identify the carriers that are subject to its jurisdiction has been a recurring issue since the Safety Board made its initial recommendation to the FHWA concerning this matter in 1978. Although

passenger carriers are supposedly assigned a high priority in FHWA's process of selecting carriers for compliance reviews, Golden Sons and 46 percent of the sampled ICC-authorized passenger carriers were not on the MCMIS at the time of this accident.

Furthermore, the FHWA's position concerning carrier identification procedures, especially with respect to ICC-authorized carriers, the Safety Board believes, has been inconsistent. Although the FHWA noted in a December 1988 rulemaking that it monitored the *ICC Register* to identify those carriers applying for operating authority, an FHWA witness testified at the Safety Board's public hearing that the FHWA had not monitored the *ICC Register* since the early 1980s.

Although the FHWA has responded positively to the Safety Board's recommendations about improving carrier identification procedures, the changes it implemented were apparently neither permanent nor effective. Therefore, despite the FHWA's position that as a result of this accident it now is effectively identifying ICC-authorized carriers, the Safety Board believes that the FHWA needs to develop and implement a comprehensive and permanent program to identify all motor carriers subject to its jurisdiction.

*Establishing Accountability for Identification.*—The Safety Board believes that the FHWA continues to have difficulty identifying carriers because it does not assign this activity the priority it deserves. The Safety Board realizes that the FHWA has limited resources and that a concerted effort is required to improve the carrier identification system.

The FHWA does not make full use of the data available from the ICC, and it does not systematically access State record systems. The Safety Board concludes that the FHWA's system for identifying carriers is inadequate. The Safety Board believes that the FHWA's Office of Motor Carriers should develop a systematic and continual process of carrier identification that includes the immediate entry of new carriers onto the MCMIS, systematically accessing available State record systems, and maintaining contact with the ICC concerning new motor carriers. The Safety Board believes that the FHWA should devise a method of verifying that the process results in the identification of the entire carrier population.

**Highway Signing**

The signs at the accident site warned of steepness, and the busdriver indicated that he had seen them. However, the signs did not conform to MUTCD standards and were not precise about the length and steepness of the hill; moreover, they were not properly positioned. Signs prior to the crest of the hill indicated a 45-mph speed limit and not until 1,500 feet from Breakneck Road did signs give a lower speed for trucks and buses. Further, although many signs said "use lower gear," no signs indicated how steep the hill was. Therefore, the Safety Board concludes that although the signs warned the busdriver, they did not accurately reflect the characteristics of the roadway and were not in compliance with the MUTCD requirements.

After the accident, Sussex County changed some of the signing to stop vehicles that weigh more than 4 tons from using CR 515. Signs that read "Trucks, Steep Downgrade, Use Lower Gear" were changed to include "Bus." The county has also installed a truck and bus speed limit sign 2,700 feet before Breakneck Road and included a "17% Steep Grade" warning sign. Sussex County has indicated to the Safety Board that it is continuing to revise the signing on CR 515 to ensure its conformance with the MUTCD.

**Survival Aspects**

The accident bus, which was 20 years old, generally maintained its integrity during the overturns. Although the accident created a large opening at the right front of the bus, the opening was probably caused by the bus striking a rock embankment and trees while it was sliding on its side. No passengers reported difficulty leaving the bus. However, because the rear emergency exit window was blocked and there was a fire after the bus came to rest, there was a potential for more serious injuries and more deaths.

All of the occupants who were ejected went through the large hole in the front of the bus and sustained greater injuries than those who remained in the bus. They struck hard, unyielding objects, such as the asphalt and trees, which caused severe injuries. Except for those passengers who were severely burned, the passengers who were not ejected received primarily minor or moderate injuries. The only passengers who were killed were ejected.

The Safety Board has reviewed previous studies and FARS data to evaluate the issue of occupant ejection from intercity buses. Previous FHWA studies focused on lapbelts as a primary method of restraining passengers during collisions. Although lapbelts would prevent ejections, those studies concluded that there was insufficient evidence to suggest that lapbelts would significantly reduce or mitigate passenger injuries.

The FARS database includes data about all fatal accidents nationwide. The Safety Board data concerning fatally-injured ejected bus passengers are not consistent with the FARS data. Between 1985 and 1991, the Safety Board investigated accidents involving more fatally-injured ejected bus passengers than were reflected in the FARS data. Historically the U.S. Department of Transportation has depended on the FARS database. However, the Safety Board believes that the information collected by FARS on fatally-injured ejected passengers in intercity buses does not reflect the scope of the problem. Therefore, the Safety Board concludes that current data on intercity bus injuries do not adequately reflect the number of injuries and deaths caused by ejections.

In October 1992, the FHWA began collecting data from carriers and other sources on noncollision injuries sustained by passengers. In February 1993, the FHWA began collecting the data about injuries and fatalities caused by collisions. The Safety Board believes that this project will help provide the FHWA with the necessary data to evaluate the occupant ejection issue.

### Fire

During the accident, fuel spilled from the bus's fuel tank and the fuel vapors ignited. The postaccident examination of the bus revealed that the fuel tank filler neck did not have a fuel cap. The cap was not found at the accident site, and the fuel tank was not damaged in the collision. However, the filler neck was deformed in such a manner that a cap would not have fit onto it. The deformation probably happened before the accident because there was no other damage around the fuel tank or filler neck; therefore the cap could not have been in place when the accident happened. During the overturns, a substantial amount of fuel spilled from the fuel tank. There were several possible sources of ignition, including friction from the bus sliding along the roadway, electrical sparks from the disconnected battery cables, and friction generated during the collision with the passenger car. Therefore, the Safety Board concludes that the risk of fire would have been substantially reduced had a fuel cap been in place.

### Emergency Medical Service

For several reasons, the EMS at the accident scene was disorganized, and the communication among personnel was not efficient. First, the EMS personnel did not participate in the incident command structure. Second, EMS officials, according to their reports, had communication problems because radio channels were overloaded, rendering communication inaudible and incomprehensible. Finally, the accident bus blocked the entire roadway, causing difficulty in obtaining additional medical supplies and in transporting the injured to the hospitals. Although these problems hampered the EMS, the Safety Board was unable to determine whether any of the injured were adversely affected as a result.

## CONCLUSIONS

### Findings

1. Neither the weather nor the pavement contributed to the accident. The busdriver was not impaired by fatigue, alcohol, or other drugs.

2. The bus had not been adequately maintained and was not fit for service.

3. The busdriver began descending the hill in third or fourth gear.

4. The bus was going too fast for the driver to be able to shift into second gear and when he tried to, he instead shifted into neutral; with the bus in neutral, the engine and transmission were unable to help retard the speed of the bus.

5. The bus was traveling about 60 mph when it struck the first car.

6. The busdriver knew or should have known that he had to downshift to second gear before descending the hill; however, he failed to do so.

7. Because its brakes were extremely deficient, the accident bus could not have negotiated the hill in third gear.

8. The busdriver knew about the deficient condition of the brakes and the bus and chose to operate the bus without first repairing the brakes and other known major deficiencies.

9. Although the State of New York had sufficient indications that Golden Sons was not in compliance with State and Federal safety requirements, it did not inspect or review the carrier's operations and vehicles.

10. Issuing registration plates to a bus upon certification that it will be inspected within 10 days does not adequately deter operators of uninspected and unsafe buses.

11. The New York Department of Transportation does not adequately ensure that buses subject to its jurisdiction are inspected.

12. The Federal Highway Administration's system for identifying carriers is inadequate.

13. Although the signs in place at the time of the accident warned the busdriver, they did not accurately reflect the characteristics of the roadway and were not in compliance with the *Manual on Uniform Traffic Control Devices* requirements.

14. Current data on intercity bus ejections do not adequately reflect the number of injuries and deaths caused by ejections.

15. The risk of fire would have been substantially reduced had the bus had a fuel cap.

**Probable Cause**

The National Transportation Safety Board determines that the probable cause of the accident was the busdriver/owner's failure to maintain the bus adequately and his deliberate disregard in choosing to operate the bus with known brake deficiencies. Contributing to the accident was the failure of the New York Department of Transportation to inspect the bus and ensure that its deficiencies were corrected. Also contributing to the accident was the inadequacy of the Federal Highway Administration's system for identifying motor carriers.

## RECOMMENDATIONS

--to the Federal Highway Administration:

Require any carrier that changes its name or principal place-of-business address to update its MCS-150 promptly. (Class II, Priority Action) (H-93-27)

Develop a systematic and continual process of identification of carriers subject to the Federal Highway Administration's jurisdiction that includes the immediate entry of new carriers onto the Motor Carrier Management Information System, systematically accessing available State record systems, and maintaining contact with the Interstate Commerce Commission concerning new motor carriers. Devise a method of verifying that the process results in the identification of the entire carrier population. (Class II, Priority Action) (H-93-28)

--to the New York Department of Motor Vehicles

Issue registration plates for commercial vehicles capable of transporting passengers only after the vehicle has passed an inspection.(Class II, Priority Action) (H-93-29)

--to the New York Department of Transportation

Conduct periodic roadside inspections to identify buses that are not fit for service and prohibit them from operating, regardless of whether passengers are on board, until they have passed inspection. (Class II, Priority Action) (H-93-30)

--to the American Association of Motor Vehicle Administrators:

Ascertain which States do not require mechanical inspections of vehicles capable of transporting passengers before issuing registration plates and then, recommend that those States issue registration plates for these vehicles only after the vehicle has passed an inspection. (Class II, Priority Action) (H-93-31)

--to the United Bus Owners of America:

Advise members of the circumstances of this accident and urge them to report any suspected safety violations or uninspected buses to the appropriate authorities. (Class II, Priority Action) (H-93-32)

--to the American Bus Association:

Advise members of the circumstances of this accident and urge them to report any suspected safety violations or uninspected buses to the appropriate authorities. (Class II, Priority Action) (H-93-33)

**BY THE NATIONAL TRANSPORTATION SAFETY BOARD**

Carl Vogt
Chairman

Susan Coughlin
Vice Chairman

John K. Lauber
Member

Christopher A. Hart
Member

John Hammerschmidt
Member

June 23, 1993

# APPENDIXES

## APPENDIX A

## INVESTIGATION AND HEARING

### Investigation

On July 26, 1992, about 10:00 p.m., the Safety Board dispatched an investigative team with members from Washington, D.C., Atlanta, Georgia, and Parsippany, New Jersey. On July 27, on-scene team members established investigative groups for human performance, highway and environment, vehicle, survival factors, and motor carrier operations.

Representatives of the Federal Highway Administration, the New Jersey State Police, the New Jersey Department of Transportation, the New York Department of Transportation, the Vernon Township Police Department, and Motor Coach Industries participated in the investigation.

### Public Hearing

During the public hearing on October 21-22, 1992, in Secaucus, New Jersey, representatives of the Interstate Commerce Commission, the Federal Highway Administration, the New Jersey State Police, the New Jersey Department of Transportation, the New York Department of Motor Vehicles, the New York Department of Transportation, the Sussex County Engineer's Office, and the Vernon Township Police Department testified.

## APPENDIX B

## AIS INJURY TABLE[1]

| Injuries | Drivers | Passengers | Total |
|---|---|---|---|
| AIS-1 Minor | 1 | 30 | 31 |
| AIS-2 Moderate | 1 | 8 | 9 |
| AIS-3 Serious | 1 | 1 | 2 |
| AIS-4 Severe | 0 | 2 | 2 |
| AIS-5 Critical | 0 | 8 | 8 |
| AIS-6 Unsurvivable | 0 | 0 | 0 |
| AIS-9 None/Unknown | 0 | 1 | 1 |
| Totals | 3 | 50 | 53 |

[1]Conforms to the Association for the Advancement of Automotive Medicine 1990 revised abbreviated injury scale.

## APPENDIX C

## BUSDRIVER INFORMATION

Robert Campbell was 60 years old and married with children. He had a valid commercial driver's license issued by the State of New York on January 24, 1992. His last medical certificate was dated March 26, 1992.

## APPENDIX D

## EXCERPTS FROM THE NEW YORK STATE COMMERCIAL DRIVER'S LICENSE MANUAL (CDLM)

Section 2.3 of the CDLM, "Shifting Gears," states:

> **Before starting down a hill.** Slow down and shift down to a speed that you can control without using the brakes hard. Otherwise the brakes can overheat and lose their braking power. Downshift **before** starting down the hill. Make sure you are in low enough gear, usually lower than the gear required to climb the same hill.

Section 2.6 of the CDLM, "Controlling Speed," states:

> **Speed and Curves** - Drivers must adjust their speed for curves in the road. If you take a curve too fast, two things can happen. The wheels can lose their traction and continue straight ahead, so you skid off the road. Or, the wheels may keep their traction and the vehicle rolls over. Tests have shown that trucks with a high center of gravity can roll over at the posted speed limit for a curve.

Section 2.11 of the CDLM, "Mountain Driving," states:

> **Use of Gears Going Down Hill** - No matter what the size of your vehicle, going down long, steep grades can cause your brakes to fail if you go too fast. Using lower gears will help you keep from going too fast. Lower gears allow engine compression and friction to help slow the vehicle. This is true whether you have an automatic transmission or a manual transmission.
>
> If you do have a large vehicle with a manual transmission, don't wait until you have started down the hill to shift down. You might get hung up in neutral and would lose the benefit of engine braking. You would find yourself coasting, which would be illegal

and dangerous. **Be in the right gear before starting down the hill.**

**Proper Braking** - When going down hill, brakes will always heat up. They are designed so brake shoes or pads rub against the brake drum or disks to slow the vehicle, which creates heat. Brakes are designed to take a lot of heat. However, brakes can be made to fail from excessive heat by attempting to slow down from too high a speed too many times or too quickly. Brakes will fade (have less stopping power) when they get very hot, and they can get to the point where they will no longer slow the vehicle.

The right way to use your brakes for long downhill grades is to go slow enough that a fairly light use of the brakes will keep your speed from increasing. If you go slow enough, the brakes will be able to get rid of the heat and they won't get too hot.

Some people believe that letting up on the brakes from time to time will allow them to cool enough so they don't become overheated. Tests have proven this is **not** true. Brake drums cool very slowly, so the amount of cooling between applications is not enough to prevent overheating. This type of braking requires heavier brake pressures than steady application does. Heavy pressure on the brakes from time to time builds up more heat than light continuous pressure does. Therefore, select the right gear, go slow enough, and maintain a lighter, steadier use of the brakes.

ARTICLE 19-A, *VEHICLE & TRAFFIC LAW*

*SPECIAL REQUIREMENTS FOR BUS DRIVERS*

# Article 19-A

# Vehicle & Traffic Law Special Requirements for Bus Drivers



DS-900 (3/92)

APPENDIX E

ARTICLE 19-A

SPECIAL REQUIREMENTS FOR BUS DRIVERS


| Section | |
|---|---|
| 509-a. | Definitions. |
| 509-b. | Qualifications of bus drivers. |
| 509-c. | Disqualification of bus drivers generally. |
| 509-cc. | Disqualification of drivers of school buses. |
| 509-d. | Qualification procedures for bus drivers, maintenance of files; availability to subsequent employers. |
| 509-e. | Annual review of driving record. |
| 509-f. | Record of violations. |
| 509-g. | Examination and tests. |
| 509-h. | Operation by person not licensed to drive a bus. |
| 509-i. | Notification of a conviction resulting from a violation of this chapter in this state or a motor vehicle conviction in another state and license revocation. |
| 509-j. | Compliance required. |
| 509-k. | Ill or fatigued operator. |
| 509-l. | Drugs, controlled substances and intoxicating liquor. |
| 509-m. | Duties of the department. |
| 509-n. | Exempt carriers; reporting requirements. |
| 509-o. | Penalties. |


509-a. Definitions. As used in this article the term: (1) bus shall mean every motor vehicle, owned, leased, rented or otherwise controlled by a motor carrier, which: (a) is a school bus as defined in section one hundred forty-two of this chapter or has a seating capacity of more than ten adult passengers in addition to the driver and which is used for the transportation of persons under the age of twenty-one or persons of any age who are mentally or physically disabled to a place of vocational, academic or religious instruction or religious service including nursery schools, day care centers and camps or, (b) is required to obtain approval to operate in the state as a common or contract carrier of passengers by motor vehicle from the commissioner of transportation, the New York city bureau of franchise or the interstate commerce commission, or (c) is operated by a transit authority or municipality and is used to transport persons for hire. Provided, however, that bus shall not mean an authorized emergency vehicle operated in the course of an emergency, or a motor vehicle used in the transportation of agricultural workers to and from their place of employment;

(2) driver or bus driver shall mean every person: (i) who is self-employed and drives a bus for hire or profit; or (ii) who is employed by a motor carrier and operates a bus owned, leased or rented by such employer; or (iii) who as a volunteer drives a bus which is owned, leased or rented by a motor carrier. Provided, however, bus driver shall not include those persons who are engaged in the

maintenance, repair or garaging of such buses and in the course of their duties must incidentally drive a bus without passengers, or who, as a volunteer, drive a bus with passengers for less than thirty days each year;

(3) motor carrier shall mean any person, corporation, municipality, or entity, public or private, who directs one or more bus drivers and who operates a bus wholly within or partly within and partly without this state in connection with the business of transporting passengers for hire or in the operation or administration of any business, or place of vocational, academic or religious instruction or religious service for persons under the age of twenty-one or persons of any age who are mentally disabled including nursery schools, day care centers and camps, or public agency, except such out-of-state public or governmental operators who may be exempted from the provisions of this article by the commissioner through regulation promulgated by the commissioner;

(4) intoxicating liquor shall mean and include, alcohol, spirits, liquor, wine, beer and cider having alcoholic content;

(5) drug shall mean any substance listed in section thirty-three hundred six of the public health law not dispensed or consumed pursuant to a lawful prescription;

(6) controlled substance shall mean any substance listed in section thirty-three hundred six of the public health law not dispensed or consumed pursuant to lawful prescription.

509-b. Qualifications of bus drivers. Notwithstanding any other provision of law, a person shall be qualified to operate a bus only if such person:

(1) is at least eighteen years old;

(2) has been issued a currently valid driver's license or permit which is valid for the operation of the bus in this state;

(3) has passed the bus driver physical examination administered pursuant to regulations established by the commissioner; and

(4) is not disqualified to drive a motor vehicle pursuant to section five hundred nine-c or any other provision of this article.

509-c. Disqualification of bus drivers generally. (1) Other than persons requiring qualification under section five hundred nine-cc of this chapter, a person employed as a bus driver on September fifteenth, nineteen hundred eighty-five and who was subject to the provisions of this article as it existed immediately prior to September fifteen, nineteen hundred eighty-five, shall be disqualified from operating a bus as follows:

(a) permanently, if that person has been convicted of or forfeited bond or collateral which forfeiture order has not been vacated or the subject of an order of remission upon a violation of section 130.30, 130.35, 130.45, 130.50, 130.60, or 130.65 of the penal law, or an offense committed under a former section of the penal law which would constitute a violation of the aforesaid sections of the penal law or any offense committed outside of this state which would constitute a

violation of the aforesaid sections of the penal law, provided, however, the provisions of this paragraph shall not apply to convictions, suspensions or revocations or forfeitures of bonds for collateral upon any of the charges listed in this paragraph for violations which occurred prior to September first, nineteen hundred seventy-four committed by a person employed as a bus driver on September first, nineteen hundred seventy-four. However, such disqualification may be waived provided that five years have expired since the applicant was discharged or released from a sentence of imprisonment imposed pursuant to conviction of an offense that requires disqualification under this paragraph and that the applicant shall have been granted a certificate of relief from disabilities as provided for in section seven hundred one of the correction law.

(b) for a period of five years from the date of last conviction specified herein, if that person

(i) has been convicted of any violation of any subdivision of section eleven hundred ninety-two of this chapter or an offense committed outside this state which would constitute a violation of section eleven hundred ninety-two of this chapter, and the offense was committed while the driver was driving a bus in the employ of a motor carrier or in the furtherance of a commercial enterprise in interstate, intrastate or foreign commerce;

(ii) has been twice convicted of a violation of any subdivision of section eleven hundred ninety-two of this chapter or offenses committed outside this state which would constitute a violation of section eleven hundred ninety-two of this chapter, committed within the preceding five year period;

(iii) has been twice convicted of a violation of any subdivision of section eleven hundred ninety-two of this chapter, or an offense committed outside of this state which would constitute a violation of any subdivision of section eleven hundred ninety-two of this chapter, committed within any ten year period after September fifteenth, nineteen hundred eighty-five; or

(iv) has been convicted of leaving the scene of an accident which resulted in personal injury or death under subdivision two of section six hundred of this chapter or an offense committed outside of this state which would constitute a violation of subdivision two of section six hundred of this chapter. Such disqualification shall be for a period of three years if such conviction occurred prior to September fifteenth, nineteen hundred eighty-five; or

(v) has been convicted of a violation of section 120.04, 125.13 or 235.07 of the penal law.

(c) for a period of five years from the date of last conviction, if that person has been convicted of a violation of subdivision three of section five hundred eleven of this chapter on or after September fifteenth, nineteen hundred eighty-five;

(d) for a period of one year from the date of last conviction, if that person has accumulated nine or more points on his or her driving record for acts that occurred during an eighteen month period on or after September fifteenth, nineteen hundred eighty-five, provided, however, that the disqualification shall terminate if the person has reduced the points to less than nine through the successful completion of a motor vehicle accident prevention course.

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(2) All other bus drivers who are not subject to subdivision one of this section shall be disqualified from operating a bus as follows:

(a) permanently, if that person has been convicted of or forfeited bond or collateral which forfeiture order has not been vacated or the subject of an order of remission upon a violation committed prior to September fifteenth, nineteen hundred eighty-five, of section 130.30, 130.35, 130.45, 130.50, 130.60, or 130.65 of the penal law, or an offense committed under a former section of the penal law which would constitute a violation of the aforesaid sections of the penal law or any offense committed outside of this state which would constitute a violation of the aforesaid sections of the penal law. However, such disqualification may be waived provided that five years have expired since the applicant was discharged or released from a sentence of imprisonment imposed pursuant to conviction of an offense that requires disqualification under this paragraph and that the applicant shall have been granted a certificate of relief from disabilities as provided for in section seven hundred one of the correction law.

(b) for a period of five years from the date of last conviction specified herein, if the person

(i) has been convicted of a violation of any subdivision of section eleven hundred ninety-two of this chapter or an offense committed outside this state which would constitute a violation of section eleven hundred ninety-two of this chapter, and the offense was committed while the driver was driving a bus in the employ of a motor carrier or in the furtherance of a commercial enterprise in interstate, intrastate or foreign commerce;

(ii) has been twice convicted of a violation of any subdivision of section eleven hundred ninety-two of this chapter or an offense committed outside of this state within any ten year period on or after September fifteenth, nineteen hundred eighty-five, which would constitute a violation of section eleven hundred ninety-two of this chapter; or

(iii) has been convicted of leaving the scene of an accident which resulted in personal injury or death under subdivision two of section six hundred of this chapter or an offense committed outside of this state which would constitute a violation of subdivision two of section six hundred of this chapter; or

(iv) has been convicted of a violation of section 120.04, 125.13 or 235.07 of the penal law.

(c) for a period of five years from the date of last conviction, if that person has been convicted of any violation of subdivision three of section five hundred eleven of this chapter on or after September fifteenth, nineteen hundred eighty-five;

(d) for a period of one year from the date of last conviction, if that person accumulates nine or more points on his or her driving record for acts occurring during an eighteen month period, provided, however, that the disqualification shall terminate if the person has reduced the points to less than nine through the successful completion of a motor vehicle accident prevention course.

(3) A person shall be disqualified from operating a bus if that person has had any license, permit, or privilege to operate a motor vehicle suspended, revoked, withdrawn or denied and such license,

permit or privilege has not been reinstated by the authority which took such action. Provided, however, that the provisions of this subdivision shall not apply to a person whose (i) license, permit or privilege to operate a motor vehicle cannot be reinstated because of non-residency in the state in which the license was suspended, revoked, withdrawn or denied or (ii) a person holds a conditional driver's license or a restricted use license issued by the commissioner pursuant to the provisions of article twenty-one or twenty-one-A of this chapter, and is not disqualified under any other provision of this article.

509-cc. Disqualification of drivers of school buses. (1) A person employed as a driver of a school bus as defined in paragraph (a) of subdivision one of section five hundred nine-a of this chapter on September fifteenth, nineteen hundred eighty-five and who was subject to the provisions of this article as it existed immediately prior to September fifteen, nineteen hundred eighty-five, and was employed in this state as a driver of a school bus as defined in paragraph (a) of subdivision one of section five hundred nine-a of this chapter at any time during the first six months of nineteen hundred eighty-five, shall be disqualified from operating a school bus as follows:

(a) permanently, if that person

(i) has been convicted of or forfeited bond or collateral which forfeiture order has not been vacated or the subject of an order of remission upon a violation committed prior to September fifteenth, nineteen hundred eighty-five, of section 130.30, 130.35, 130.45, 130.50, 130.60, or 130.65 of the penal law, or an offense committed under a former section of the penal law which would constitute a violation of the aforesaid sections of the penal law or any offense committed outside of this state which would constitute a violation of aforesaid sections of the penal law, provided, however, the provisions of this subparagraph shall not apply to convictions, suspensions or revocations or forfeitures of bonds for collateral upon any of the charges listed in this subparagraph for violations which occurred prior to September first, nineteen hundred seventy-four committed by a person employed as a bus driver on September first, nineteen hundred seventy-four. However, such disqualification may be waived provided that five years have expired since the applicant was discharged or released from a sentence of imprisonment imposed pursuant to conviction of an offense that requires disqualification under this paragraph and that the applicant shall have been granted a certificate of relief from disabilities as provided for in section seven hundred one of the correction law. When the certificate is issued by a court for a conviction which occurred in this state, it shall only be issued by the court having jurisdiction over such conviction. Such certificate shall specifically indicate that the authority granting such certificate has considered the bearing, if any, the criminal offense or offenses for which the person was convicted will have on the applicant's fitness or ability to operate a bus transporting school children to the applicant's prospective employment, prior to granting such a certificate; or

(ii) has been convicted of an offense listed in paragraph (a) of subdivision four of this section that was committed on or after

September fifteenth, nineteen hundred eighty-five. However, such disqualification may be waived by the commissioner provided that five years have expired since the applicant was discharged or released from a sentence of imprisonment imposed pursuant to conviction of an offense that requires disqualification under this paragraph and that the applicant shall have been granted a certificate of relief from disabilities as provided for in section seven hundred one of the correction law. When the certificate is issued by a court for a conviction which occurred in this state, it shall only be issued by the court having jurisdiction over such conviction. Such certificate shall specifically indicate that the authority granting such certificate has considered the bearing, if any, the criminal offense or offenses for which the person was convicted will have on the applicant's fitness or ability to operate a bus transporting school children, prior to granting such a certificate; or

(iii) has been convicted of an offense listed in paragraph (b) of subdivision four of this section that was committed on or after September fifteenth, nineteen hundred eighty-five. However, such disqualification shall be waived provided that five years have expired since the applicant discharged or released from a sentence of imprisonment imposed pursuant to conviction of an offense that requires disqualification under this paragraph and that the applicant shall have been granted a certificate of relief from disabilities as provided for in section seven hundred one of the correction law. When the certificate is issued by a court for a conviction which occurred in this state, it shall only be issued by the court having jurisdiction over such conviction. Such certificate shall specifically indicate that the authority granting such certificate has considered the bearing, if any, the criminal offense or offenses for which the person was convicted will have on the applicant's fitness or ability to operate a bus transporting school children, prior to granting such a certificate. Provided, however, that at the discretion of the commissioner, the certificate of relief from disabilities may remove disqualification at any time; or

(b) for a period of five years from the date of last conviction specified herein, if that person

(i) has been convicted within the preceding five years of an offense listed in paragraph (c) of subdivision four of this section that was committed on or after September fifteenth, nineteen hundred eighty-five. However, such disqualification shall be waived provided that the applicant has been granted a certificate of relief from disabilities as provided for in section seven hundred one of the correction law. When the certificate is issued by a court for a conviction which occurred in this state, it shall only be issued by the court having jurisdiction over such conviction. Such certificate shall specifically indicate that the authority granting such certificate has considered the bearing, if any, the criminal offense or offenses for which the person was convicted will have on the applicant's fitness or ability to operate a bus transporting school children, prior to granting such a certificate;

(ii) has been convicted of any violation of section eleven hundred ninety-two of this chapter or an offense committed outside this state which would constitute a violation of section eleven hundred

ninety-two of this chapter, and the offense was committed while the driver was driving a bus in the employ of a motor carrier or in the furtherance of a commercial enterprise in interstate, intrastate or foreign commerce;

(iii) has been twice convicted of a violation of any subdivision of section eleven hundred ninety-two of this chapter or offenses committed outside this state which would constitute a violation of section eleven hundred ninety-two of this chapter, committed within the preceding five year period;

(iv) has been twice convicted of a violation of any subdivision of section eleven hundred ninety-two of this chapter, or an offense committed outside of this state which would constitute a violation of any subdivision of section one thousand one hundred ninety-two of this chapter, committed within any ten year period after September fifteenth, nineteen hundred eighty-five; or

(v) has been convicted of leaving the scene of an accident which resulted in personal injury or death under section six hundred of this chapter or an offense committed outside of this state which would constitute a violation of section six hundred of this chapter.

(c) for a period of five years from the date of last conviction, if that person has been convicted of a violation, if that person has been convicted of a violation of subdivision three of section five hundred eleven of this chapter on or after September fifteenth, nineteen hundred eighty-five;

(d) for a period of one year from the date of last conviction, if that person has accumulated nine or more points on his or her driving record for acts that occurred during an eighteen month period on or after September fifteenth, nineteen hundred eighty-five, provided, however, that the disqualification shall terminate if the person has reduced the points to less than nine through the successful completion of a motor vehicle accident prevention course.

(2) All other school bus drivers who are not subject to subdivision one of this section shall be disqualified from operating a bus as follows:

(a) permanently, if that person has been convicted of an offense listed in paragraph (a) of subdivision four of this section. However, such disqualification may be waived by the commissioner provided that five years have expired since the applicant was discharged or released from a sentence of imprisonment pursuant to conviction of an offense that requires disqualification under this paragraph and that the applicant shall have been granted a certificate of relief from disabilities as provided for in section seven hundred one of the correction law. When the certificate is issued by a court for a conviction which occurred in this state, it shall only be issued by the court having jurisdiction over such conviction. Such certificate shall specifically indicate that the authority granting such certificate has considered the bearing, if any, the criminal offense or offenses for which the person was convicted will have on the applicant's fitness or ability to operate a bus transporting school children to the applicant's prospective employment, prior to granting such a certificate.

(b) permanently, if that person has been convicted of an offense listed in paragraph (b) of subdivision four of this section. However,

such disqualification shall be waived provided that five years have expired since the applicant was incarcerated pursuant to a sentence of imprisonment imposed on conviction of an offense that requires disqualification under this paragraph and that the applicant shall have been granted a certificate of relief from disabilities as provided for in section seven hundred one of the correction law. When the certificate is issued by a court for a conviction which occurred in this state, it shall only be issued by the court having jurisdiction over such conviction. Such certificate shall specifically indicate that the authority granting such certificate has considered the bearing, if any, the criminal offense or offenses for which the person was convicted will have on the applicant's fitness or ability to operate a bus transporting school children, prior to granting such a certificate. Provided, however, that at the discretion of the commissioner the certificate of relief from disabilities may remove disqualification at any time.

(c) for a period of five years from the date of last conviction specified herein, if that person

(i) has been convicted within the preceding five years of an offense listed in paragraph (c) of subdivision four of this section. However, notwithstanding the provisions of subdivision three of section seven hundred one of the correction law. Such disqualification shall be waived provided that the applicant has been granted a certificate of relief from disabilities as provided for in section seven hundred one-g of the correction law. When the certificate is issued by a court for a conviction which occurred in this state, it shall only be issued by the court having jurisdiction over such conviction. Such certificate shall specifically indicate that the authority granting such certificate has considered the bearing, if any, the criminal offense or offenses for which the person was convicted will have on the applicant's fitness or ability to operate a bus transporting school children, prior to granting such a certificate.

(ii) has been convicted of a violation of any subdivision of section eleven hundred ninety-two of this chapter or an offense committed outside of this state which would constitute a violation of section eleven hundred ninety-two of this chapter, and the offense was committed while the driver was driving a bus in the employ of a motor carrier or in the furtherance of a commercial enterprise in interstate, intrastate or foreign commerce:

(iii) has been twice convicted of a violation of any subdivision of section eleven hundred ninety-two of this chapter or an offense committed outside of this state within any ten year period on or after September fifteenth, nineteen hundred eight-five, which would constitute a violation of section eleven hundred ninety-two of this chapter; or

(iv) has been convicted of leaving the scene of an accident which resulted in personal injury or death under subdivision two of section six hundred of this chapter or an offense committed outside of this state which would constitute a violation of subdivision two of section six hundred of this chapter; or

(v) has been convicted of a violation of section 120.04, 125.13 or 235.07 of the penal law.

(d) for a period of five years from the date of last conviction, if that person has been convicted of subdivision three of section five hundred eleven of this chapter on or after September fifteenth, nineteen hundred eight-five;

(e) for a period of one year from the date of last conviction, if that person accumulates nine or more points on his or her driving record for acts occurring during an eighteen month period, provided, however, that the disqualification shall terminate if the person has reduced the points to less than nine through the successful completion of a motor vehicle accident prevention course.

(3) A person shall be disqualified from operating a school bus if that person has had any license, permit, or privilege to operate a motor vehicle suspended, revoked, withdrawn or denied and such license, permit or privilege has not been reinstated by the authority which took such action. Provided, however, that the provisions of this subdivision shall not apply to a person whose (i) license, permit or privilege to operate a motor vehicle cannot be reinstated because of non-residency in the state in which the license was suspended, revoked, withdrawn or denied or (ii) a person holds a conditional driver's license or a restricted use license issued by the commissioner pursuant to the provisions of article twenty-one or twenty-one-A of this chapter, and is not disqualified under any other provision of this article.

(4)(a) The offenses referred to in subparagraph (ii) of paragraph (a) of subdivision one and paragraph (a) of subdivision two of this section that result in permanent disqualification shall include a conviction under sections 125.12, 125.20, 125.25, 125.27, 130.30, 130.35, 130.45, 130.50, 130.70, 135.25, 150.20 of the penal law or an attempt to commit any of the aforesaid offenses under section 110.00 of the penal law, or any offenses committed under a former section of the penal law which would constitute violations of the aforesaid sections of the penal law, or any offenses committed outside this state which would constitute violations of the aforesaid sections of the penal law.

(b) The offenses referred to in subparagraph (ii) of paragraph (a) of subdivision one and paragraph (b) of subdivision two of this section that result in permanent disqualification shall include a conviction under sections 100.13, 105.15, 105.17, 115.08, 125.10, 125.15, 130.40, 130.60, 130.65, 135.20, 160.15, 220.18, 220.21, 220.39, 220.41, 220.43, 260.00, 263.05, 263.10, 263.15, 265.04 of the penal law or an attempt to commit any of the aforesaid offenses under section 110.00 of the penal law, or any offenses committed under a former section of the penal law which would constitute violations of the aforesaid sections of the penal law, or any offenses committed outside this state which would constitute violations of the aforesaid sections of the penal law.

(c) The offenses referred to in subparagraph (i) of paragraph (b) of subdivision one and subparagraph (i) of paragraph (c) of subdivision two of this section that result in disqualification for a period of five years shall include a conviction under sections 100.10, 105.13, 115.05, 120.03, 120.04, 120.05, 120.10, 120.25, 125.13, 125.40, 125.45, 130.20, 130.25, 130.55, 135.10, 135.55, 140.17, 140.25, 140.30, 145.12, 150.10, 150.15, 160.05, 160.10, 220.05, 220.06, 220.09, 220.16, 220.31, 220.34, 220.60, 221.30, 221.50, 221.55, 230.00, 230.05, 230.06,

230.20, 230.25, 230.30, 230.32, 235.05, 235.06, 235.07, 235.21, 240.06, 245.00, 260.10, subdivision two of section 260.20 and sections 260.25, 265.02, 265.03, 265.08, 265.09, 265.10, 265.12, 265.35 of the penal law or an attempt to commit any of the aforesaid offenses under section 110.00 of the penal law, or any similar offenses committed under a former section of the penal law which would constitute violations of the aforesaid sections of the penal law, or any offenses committed outside this state which would constitute violations of the aforesaid sections of the penal law.

509-d. Qualification procedures for bus drivers, maintenance of files and availability to subsequent employers. (1) Before employing a new bus driver a motor carrier shall:

(i) require such person to pass a medical examination to drive a bus as provided in section five hundred nine-g of this article;

(ii) make an inquiry to the appropriate agency in every state in which the person resided or worked and/or held a driver's license or learner's permit during the preceding three years, for such person's motor vehicle driving record;

(iii) investigate the person's employment record during the preceding three years.

(2) Investigations and inquiries of drivers of school buses; maintenance of file; availability to subsequent employer. (a) A motor carrier shall request the department to initiate a criminal history check for persons employed as drivers of school buses, as defined in paragraph (a) of subdivision one of section five hundred nine-a of this chapter, on September fourteenth, nineteen hundred eighty-five by such motor carrier, in accordance with regulations of the commissioner by requiring such school bus drivers to submit to the mandated fingerprinting procedure. The department of motor vehicles at the request of the motor carrier shall initiate a criminal history check of all current school bus drivers of such motor carrier as well as those hired on or after September fifteenth, nineteen hundred eighty-five by requiring such drivers and applicants to submit to the mandated fingerprinting procedure as part of the school bus driver qualification procedure. Such fingerprinting procedure and the related fee as well as a procedure for the return of such fingerprints upon application of a person who has terminated employment as a school bus driver shall be established in accordance with regulations of the commissioner in consultation with the commissioner of the division of criminal justice services. The fee to be paid by or on behalf of the school bus driver or applicant shall be no more than five dollars over the cost to the commissioner for the criminal history check. No cause of action against the department, the division of criminal justice services, a motor carrier or political subdivision for damages related to the dissemination of criminal history records pursuant to this section shall exist when such department, division, motor carrier or political subdivision has reasonably and in good faith relied upon the accuracy and completeness of criminal history information furnished to it by qualified agencies.

(b) After a motor carrier has completed the procedures set forth in paragraph (a) this of subdivision, it shall designate each new school bus driver as a conditional school bus driver as defined in section five hundred nine-h of this article, until the carrier is in receipt of information of the new school bus driver's qualification from the department and the required driving records from each appropriate state agency. If the information received indicates that there is a pending criminal offense or driving violation that would require disqualification of a school bus driver under this article, the motor carrier shall require the applicant to provide documentation evidencing the disposition of such offense or violation in accordance with regulations established by the commissioner. The department, upon notice of disqualification to an applicant, shall include in such notice information regarding the applicant's right to appeal and contest any claimed ground for disqualification. Such notice shall also advise the applicant of his or her right to obtain, examine, inspect and copy any information used by the department in support of its determination of disqualification. In the event the applicant contests the existence of a criminal conviction in his or her name, such applicant may provide documentation evidencing the disposition of such offense or violation in accordance with regulations established by the commissioner.

(3) Each motor carrier shall retain the following records in each driver's file for a period of three years, in accordance with regulations established by the commissioner:

(i) a driver abstract of operating record provided by the department and the written information provided by the appropriate agency of another state for each twelve month period;

(ii) replies from the department regarding the driver's qualifications, as well as, any subsequent information concerning any pending criminal charges against such driver;

(iii) the initial qualifying medical examination form and the biennial medical examination form completed by the carrier's physician;

(iv) the annual defensive driving review forms completed pursuant to section five hundred nine-g of this article; and

(v) the completed biennial behind-the-wheel examination forms as required under section five hundred nine-g of this article.

(4) Each motor carrier shall notify the commissioner on the form and in the manner established by regulation of the commissioner, within ten days, of the date on which a bus driver commences employment, leaves the carrier's employ or is disqualified. Such notification shall be provided in accordance with regulations established by the commissioner and shall include any information the motor carrier has relative to the bus driver's disqualification, including any information regarding criminal charges pending against the driver for violations which would disqualify the driver if a conviction resulted.

(5) Each motor carrier shall furnish the department, by October fifteenth, nineteen hundred eighty-five, a list of all bus drivers employed on September fourteenth, nineteen hundred eighty-five in accordance with regulations established by the commissioner.

(6) Each motor carrier shall furnish the department within ten days of receipt, with a copy of each bus driver's out-of-state driving record it has obtained, if such driver resides in another state, or has been employed in such other state within the past three years.

509-e. Annual review of driving record. Each motor carrier shall, at least once every twelve months, review the driving record of each bus driver it employs to determine whether that driver meets minimum requirements for safe driving and is qualified to drive a bus pursuant to section five hundred nine-b of this article. In reviewing a driving record, the motor carrier must consider any evidence that the bus driver has violated applicable provisions of the vehicle and traffic law. The motor carrier must also consider the driver's accident record and any evidence that the driver has violated laws governing the operation of motor vehicles, such as speeding, reckless driving, and operating while under the influence of alcohol or drugs, that indicate that the driver has exhibited a disregard for the safety of the public. Such information shall be recorded in the employer's record.

509-f. Record of violations. Each motor carrier shall, at least once every twelve months, require each bus driver it employs to prepare and furnish it with a list of all violations of motor vehicle traffic laws and ordinances (other than violations involving only parking) of which the driver has been convicted or on account of which he has forfeited bond or collateral during the preceding twelve months whether such violations occurred in this state or elsewhere. Such information shall be recorded in the employer's record.

509-g. Examinations and tests. Each motor carrier shall require the following from each driver it employs:

1. A biennial medical examination pursuant to regulations established by the commissioner, by a physician who is not the personal physician of the driver. Included shall be a requirement to conduct a vision test pursuant to regulations issued by the commissioner.

2. An annual check of the applicant's past driving record, and a personal interview.

3. Regular observation of the driver's defensive driving performance while operating his vehicle with passengers by competent supervisory employees of the carrier, or by competent outside supervisory personnel, with written reports of the observations performed to be maintained in the driver's file.

4. A biennial behind-the-wheel driving test conducted by competent supervisory personnel of the carrier, or competent outside supervisory personnel, to include defensive driving performance. Such driving test may be conducted during the driver's normal daily operations and shall also include:

(1) Pretrip inspection.
(2) Placing the vehicle in operation.
(3) Use of the vehicle's controls and emergency equipment.
(4) Operating the vehicle in traffic and while passing other vehicles.
(5) Turning the vehicle.
(6) Braking and slowing the vehicle by means other than braking.
(7) Backing and parking the vehicle.

5. In addition to the provisions outlined above, all motor carriers shall require each driver biennially to complete a written or oral examination testing his knowledge of the rules of the road, defensive driving practices and the laws regulating driving a bus in this state. Such examination may be conducted during the driver's normal daily operations.

509-h. Operation by person not licensed to drive a bus. The motor carrier shall not knowingly permit any person to operate a bus carrying passengers unless the driver meets all of the requirements of this article; except that a motor carrier may permit a conditional school bus driver who is not otherwise disqualified under the provisions of this article to operate a bus for a period not to exceed ninety days or a longer period if granted a written extension of such ninety day period by the department pursuant to regulations established by the commissioner. Such regulation shall authorize extension for at least that period of time necessary to review information regarding the prior criminal history of the applicant.

509-i. Notification of a conviction resulting from a violation of this chapter in this state or a motor vehicle conviction in another state and license revocation. 1. A driver who receives a notice that his or her license, permit or privilege to operate a motor vehicle has been revoked, suspended or withdrawn or who is convicted of a violation of such provisions of this chapter as shall constitute a misdemeanor or a felony in any jurisdiction shall notify the motor carrier that employs such person of the contents of the notice before the end of the business day following the day he or she received it. A driver who fails to notify his or her employer of such suspension, revocation or conviction of a violation of such provisions of this chapter as shall constitute a misdemeanor or felony shall be subject to a five (5) working day suspension, or a suspension equivalent to the number of working days such driver was not in compliance with this article, whichever is longer.

1-a. A driver who is convicted of a traffic infraction in any jurisdiction shall notify his or her employer within five (5) working days from the date of conviction. A driver who fails to notify his or her employer of such conviction within the five (5) working day period shall be subject to a five (5) working day suspension; provided, however, that a first such infraction occurring on or before September sixteenth, nineteen hundred eighty-six, shall not subject such violator to the said suspension.

2. Any driver who is convicted of an offense listed in section five hundred nine-c of this article that would disqualify such driver from operating a bus shall provide notice of such conviction in writing by the following business day to the motor carrier that employs such person. The motor carrier shall not permit any driver who fails to provide such notice to operate a bus.

3. The commissioner upon receipt of information that a driver's license, permit or privilege to operate a motor vehicle has been

revoked, suspended or withdrawn in this state or elsewhere shall notify all motor carriers who have notified the commissioner of the employment of such driver; and may, if requested by a political subdivision which contracts with a motor carrier for the transportation of school children, provide such notice to the political subdivision.

4. In addition to the requirements of subdivision three of this section, the commissioner shall upon the request of the motor carrier and after payment of the fee necessary to defray the cost of the notification, notify the motor carrier of any conviction for any traffic violation resulting from operation of a motor vehicle against a bus driver employed by the motor carrier; and may, if requested by a political subdivision which contracts with a motor carrier for the transportation of school children, provide such notice to the political subdivision.

509-j. Compliance required. (a) Every motor carrier, its officers, agents, representatives, and employees responsible for the management, maintenance, operation or driving of motor vehicles, or the hiring, supervising, training, assigning, or dispatching of drivers, shall be instructed in and comply with this article.

(b) Nothing contained herein shall prevent a motor carrier or political subdivision from imposing qualifications that are more stringent than those contained in this article or from disqualifying a person who has been issued a conditional or restricted use license pursuant to the provisions of article twenty-one or twenty-one-A of this chapter.

(c) Every motor carrier shall submit an affidavit to the commissioner attesting to his compliance with this article. Such affidavit shall be submitted annually, in a manner prescribed by regulations of the commissioner.

(d) Notwithstanding any provision of any other article of this law, where an affidavit is not submitted pursuant to this section, the commissioner may, in his discretion, suspend the registration of the vehicle or the vehicles or deny registration or renewal to the vehicle or vehicles owned or operated by the motor carrier or suspend the motor carrier's privilege of operation in this state. Such suspension or denial shall only remain in effect as long as the motor carrier fails to submit such affidavit.

(e) The commissioner or any person deputized by the commissioner, may require any motor carrier to pay to the people of this state a civil penalty, if after the motor carrier has had an opportunity to be heard, the commissioner finds that the motor carrier has violated any provision of this article or regulations promulgated therein, or has made any false statement or misrepresentation on any affidavit of compliance filed with the commissioner or with respect to violations of paragraphs (i) and (ii) of subdivision one, paragraphs (a) and (b) of subdivision two, and subdivisions three, four and five of section five hundred nine-d, section five hundred nine-g, section five hundred nine-h and subdivision two of section five hundred nine-l of this article the commissioner may in lieu of or in addition to a civil penalty suspend all of a motor carrier's registrations. Any civil penalty assessed

shall not be less than two hundred fifty dollars nor greater than one thousand dollars for each false statement or representation found to have been made. If the registrant fails to pay such penalty within twenty days after the mailing of such order, postage prepaid, certified and addressed to the last known place of business of such registrant, unless such order is stayed by an order of a court of competent jurisdiction, the commissioner may revoke the vehicle registrations or out of state registration privilege of operation in the state of such motor carrier or may suspend the same for such periods as the commissioner may determine. Civil penalties assessed under this subdivision shall be paid to the commissioner for deposit into the state treasury, and unpaid civil penalties may be recovered by the commissioner in a civil action in the name of the commissioner.

(f) As an alternative to civil action under subdivision (e) of this section and provided that no proceeding for judicial review shall then be pending and the time for initiation of such proceeding shall have expired, the commissioner may file with the county clerk of the county in which the registrant is located a final order of the commissioner containing the amount of the penalty assessed. The filing of such final order shall have the same force and effect as a judgment duly docketed in the office of a county clerk and may be enforced in the same manner and with the same effect as that provided by law.

509-k. Ill or fatigued operator. No driver shall operate a bus and a motor carrier shall not permit a driver to operate a bus while the driver's ability or alertness is so impaired, or so likely to become impaired, through fatigue, illness or any other cause, as to make it unsafe for him to begin or continue to operate the bus. At the request of the driver or the motor carrier such illness, fatigue, or other cause shall be certified by a qualified physician. However, in a case of grave emergency where the hazard to occupants of the bus or other users of the highway would be increased by compliance with this section, the driver may continue to operate the bus to the nearest place at which that hazard is removed.

509-l. Drugs, controlled substance and intoxicating liquor. 1. No person shall:

(a) consume a drug, controlled substance or an intoxicating liquor, regardless of its alcoholic content, or be under the influence of an intoxicating liquor or drug, within six hours before going on duty or operating, or having physical control of a bus, or

(b) consume a drug, controlled substance or an intoxicating liquor, regardless of its alcoholic content while on duty, or operating, or in physical control of a bus, or

(c) possess a drug, controlled substance or an intoxicating liquor, regardless of its alcoholic content while on duty, operating or in physical control of a bus. However, this paragraph does not apply to possession of a drug, controlled substance or an intoxicating liquor which is transported as part of a shipment or personal effects of a passenger or to alcoholic beverages which are in sealed containers.

2. No motor carrier shall require or permit a driver to:

(a) violate any provision of subdivision one of this section; or

(b) be on duty or operate a bus if, by such person's general appearance or by such person's conduct or by other substantiating evidence, such person appears to have consumed a drug, controlled substance or an intoxicating liquor within the preceding six hours.

509-m. Duties of the department. The department of motor vehicles shall:

1. At least once every three years, review the bus driver files of each motor carrier, provided, however, that the commissioner may review such bus driver files at his discretion at any other time during regular business hours.

2. Establish regulations and forms for the orderly administration of and compliance with this article. Regulations shall also be established which are necessary for implementation of the process for appeal pursuant to subdivision two of section five hundred nine-d of this article.

3. Provide each motor carrier with notice whenever one of the drivers of such motor carrier has received revocation or suspension of a driver's license, learner's permit or privilege to operate.

4. Provide a motor carrier who has complied with the requirements of subdivision four of section five hundred nine-i of this article with information on any employee of the motor carrier regarding a conviction for a violation of this chapter.

5. Upon receipt of the criminal history record report of a school bus driver, notify the motor carrier of disqualification of an applicant or school bus driver which would or could disqualify such driver under the provisions of section five hundred nine-cc of this article. Notification to the carrier shall be without specification of the grounds for disqualification, those grounds to be made available only to the school bus driver or his or her representative.

6. In order to effectuate the provisions of this article, establish procedures, by regulation, to conduct curbside verification of bus driver and motor carrier identity to determine whether or not such motor carrier has notified the commissioner of the bus driver's employment as required by subdivision four of section five hundred nine-d of this article and whether or not such motor carrier has complied with the provisions of this article and with any regulations promulgated thereunder; provided, however, such verifications shall be conducted so as not to disrupt the flow of traffic or endanger public safety.

509-n. Exempt carriers; reporting requirements. 1. A motor carrier subject to the motor carrier regulations of the United States department of transportation will be exempt from all of the annual and biennial requirements of this article, except the annual requirement which mandates that an affidavit of compliance be filed with the commissioner, provided that (i) such motor carrier does not operate in this state a school bus as defined in section one hundred forty-two of this chapter or a bus used for the transportation of persons under the

age of twenty-one or persons of any age who are mentally disabled to a place of vocational, academic or religious instruction or religious service including nursery schools, day care centers and camps or (ii) such motor carrier did not operate in the state during the previous calendar year more than one hundred days or more than ten thousand bus vehicle miles. Provided, however, for the purpose of this subdivision a school bus shall not mean a bus operated by a motor carrier subject to the motor carrier regulations of the United States department of transportation, that occasionally transports pupils or persons of any age who are mentally disabled and who are not residents of this state on chaperoned chartered trips in New York State.

2. A motor carrier subject to the motor carrier regulations of the United States department of transportation who is not exempt pursuant to the provisions of subdivision one of this section may apply to the commissioner for a waiver for those bus drivers, other than those drivers who operate a school bus as defined in section one hundred forty-two of this chapter or a bus used for the transportation of persons under the age of twenty-one to a place of vocational, academic or religious instruction or service including schools and camps, who operate a bus in this state less than thirty days each year. Such application shall include a description of a training and qualifying program which has demonstrated the motor carrier's procedures for qualifying bus drivers. Such program shall include an appropriate health and driving record review and such other information as shall be required by the commissioner to satisfy the intent of this article in an effective manner.

3. The annual affidavit of compliance required under subdivision one shall certify to the commissioner that the motor carrier does not employ a bus driver who would operate a bus in New York state and who is disqualified under section five hundred nine-c of this article, and also shall certify the number of days and vehicle miles of bus service that the carrier provided in the state during the previous calendar year. A motor carrier exempted by this section shall furnish to the commissioner upon request any records concerning drivers required to be kept by the motor carrier regulations of the United States department of transportation within ten days of receipt of such request. Failure of a motor carrier to furnish such records requested within the ten day period shall be a violation of this article.

509-o. Penalties. Upon conviction for the violation of any provision of this article the court shall impose a sentence consisting of a fine of not less then one hundred dollars nor more than two hundred fifty dollars.

# APPENDIX F

## MOTOR CARRIER IDENTIFICATION REPORT

OMB No. 2125-0544

US Department of Transportation
Federal Highway Administration

### MOTOR CARRIER IDENTIFICATION REPORT

IF THE ABOVE LOCATION IS BLANK, INCORRECT, OR IS A DIVISION OR BRANCH, PLEASE IDENTIFY YOUR COMPANY'S PRINCIPAL OFFICE IN THE SPACE BELOW.

1 NAME OF MOTOR CARRIER | 2 DBA NAME

PHYSICAL ADDRESS

3 STREET ADDRESS/ROUTE NUMBER

4 CITY | 5. COUNTY | 6. STATE | 7. ZIP CODE + 4

8 PRINCIPAL PHONE NUMBER ( ) _____ - _____ | 9. ICC DOCKET NUMBER MC _____ | 10. USDOT NUMBER USDOT _____ | 11. OPERATION CLASSIFICATION
A. Authorized For Hire B. Exempt For Hire C. Private
D. Migrant E. U.S. Mail F. Other _____

12 CARGO CLASSIFICATIONS *(Please circle all that apply)*

| | | | |
|---|---|---|---|
| A General Freight | H. Mobile Homes | O. Livestock | V Commodities Dry Bulk |
| B Household Goods | I. Machinery, Large Objects | P. Grain, Feed, Hay | W Refrigerated Food |
| C. Metal: Sheets, Coils, Rolls | J. Fresh Produce | Q Coal/Coke | X Beverages |
| D Motor Vehicles | K. Liquids/Gases | R Meat | Y. Paper Products |
| E. Driveaway/Towaway | L. Intermodal Containers | S. Garbage, Refuse, Trash | Z Other *(Specify)* |
| F. Logs, Poles, Beams, Lumber | M. Passengers | T. U.S. Mail | _____ |
| G. Building Materials | N. Oilfield Equipment | U. Chemicals | |

13 CARRIER OPERATION
A Interstate
B Intrastate Only—HazMat
C. Intrastate Only—Non-HazMat

14 HAZARDOUS MATERIALS CARRIED *(Please circle all that apply)* (T)—*In Cargo Tanks* (P)—*In Packages*

| | T | P | | T | P | | T | P |
|---|---|---|---|---|---|---|---|---|
| A Explosives A | T | P | H. Corrosives | T | P | O. Irritating Material | T | P |
| B. Explosives B | T | P | I. Oxidizers | T | P | P. ORM Material | T | P |
| C. Explosives C | T | P | J Poison A | T | P | Q Hazardous Waste | T | P |
| D. Flammable Liquid | T | P | K. Poison B | T | P | R. Etiological Agent | T | P |
| E. Flammable Solid | T | P | L. Combustible Liquid | T | P | S. Blasting Agent | T | P |
| F. Flammable Gas | T | P | M. Radioactive Material | T | P | T. Hazardous Substance | T | P |
| G Non-flammable Gas | T | P | N Organic Peroxide | T | P | U. Cryogenics | T | P |

| 15. EQUIPMENT | Straight Trucks | Truck Tractors | Trailers | HazMat Cargo Tank Trailers | HazMat Cargo Tank Trucks | Buses |
|---|---|---|---|---|---|---|
| OWNED | | | | | | |
| TERM LEASED | | | | | | |
| TRIP LEASED | | | | | | |

16. DRIVERS SUBJECT TO FMCSR
100 Mile Radius _____
Beyond 100 Mile Radius _____
TOTAL _____

17. CERTIFICATION STATEMENT *(to be completed by an authorized official)*

I, _____ *(please print name)*, certify that I am familiar with the Federal Motor Carrier Safety Regulations. Under penalties of perjury, I declare that the information entered on this report is, to the best of my knowledge and belief, true, correct and complete.

Signature _____ Date _____ Title _____

Form MCS-150 (7-90)

**NOTICE**

The Form MCS-150, Motor Carrier Identification Report, must be filed by all motor carriers operating in interstate or foreign commerce. A new motor carrier must file Form MCS-150 within 90 days after beginning operations. Exception: A motor carrier that has received written notification of a safety rating from the Federal Highway Administration (FHWA) need not file the report. To mail, fold the complete report so that the self-addressed postage paid panel is on the outside. This report is required by 49 CFR Part 385 and authorized by 49 U.S.C. 504 (1982 & Supp. III 1985).

The public reporting burden for this collection of information on the Form MCS-150 is estimated by the FHWA to average 20 minutes. If you wish to comment on the accuracy of the estimate or make suggestions for reducing this burden, please direct your comments to Office of Management and Budget and the FHWA at the following addresses:

Office of Management and Budget
Paperwork Reduction Project
Washington, DC 20503

*and*

Federal Highway Administration
Office of Motor Carrier Field Operations, HFO-10
400 7th Street, SW
Washington, DC 20590

***INSTRUCTIONS FOR COMPLETING THE MOTOR CARRIER IDENTIFICATION REPORT (MCS-150)***

*(PLEASE PRINT OR TYPE ALL INFORMATION)*

1. Enter the name of the business entity (i.e. corporation, partnership, or individual) that owns and controls the motor carrier operation.
2. If the business entity is operating under a name other than that in Block 1, i.e. "trade name", enter that name. Otherwise leave blank.
3. Enter the principal place of business (where all safety records are maintained) street address.
4. Enter the city where the principal place of business is located.
5. Enter the name of the county in which the principal place of business is located.
6. Enter the two-letter postal abbreviation for the State, or the name of the Canadian Province or Mexican State, in which the principal place of business is located.
7. Enter the zip code number corresponding with the street address.
8. Enter the telephone number including area code of the principal place of business.
9. Enter the motor carrier 'MC' number under which the Interstate Commerce Commission (ICC) issued your operating authority if appropriate. Otherwise, enter "N/A."
10. Enter the identification number assigned to your motor carrier operation by the U.S. Department of Transportation, if known. Otherwise, enter "unknown."
11. Circle appropriate classification. Circle all that apply. If F "other" is circled, enter the type of operation in the space provided.
    A. Authorized For Hire
    B. Exempt For Hire
    C. Private
    D. Migrant
    E. U.S. Mail
    F. Other _____

    *Authorized For Hire*—transportation for compensation as a common or contract carrier of property, owned by others, or passengers under the provisions of the ICC.

    *Exempt For Hire*—transportation for compensation of property exempt from the economic regulation by the ICC.

    *Private*—transportation of property, owned or leased by the motor carrier, in furtherance of a commercial enterprise other than for-hire transportation.

    *Migrant*—interstate transportation, including a contract carrier, but not a common carrier of 3 or more migrant workers to or from their employment by any motor vehicle other than a passenger automobile or station wagon.

    *U.S. Mail*—transportation of U.S. Mail under contract with the U.S. Postal Service.
12. Circle the letter of the types of cargo you usually transport. If *Z* "other," is circled enter the name of the commodity in the space provided.
13. Circle the appropriate type of operation.
    A. Interstate
    B. Intrastate, transporting hazardous materials (49 CFR 100-178)
    C. Intrastate, NOT transporting hazardous materials.

    *Interstate*—transportation of persons or property across State lines, *including international boundaries*, or wholly within one State as part of a through movement that originates or terminates in another State or country.

    *Intrastate*—transportation of persons or property wholly within one State.
14. Circle the letter of *all* of the types of hazardous materials (HM) you transport. In the columns following the HM types, either circle *T* if the HM is transported in cargo tanks or *P* if the HM is transported in other packages.
15. Enter the total number of vehicles owned, term leased and trip leased, that are, or can be, operational the day this form is completed.
16. Enter the number of drivers used on an average work day. Part-time, casual, term leased, trip leased and company drivers are to be included.
    *100 mile radius driver*—a driver that operates within a *100 air-mile radius* of the normal work reporting location.
17. Print or type the name, in the space provided, of the individual authorized to sign documents on behalf of the entity listed in Block 1. That individual must sign, date, and show his or her title in the spaces provided. (Certification Statement, see 49 CFR 385.21 and 385.23)

*U.S. Government Printing Office: 1990 — 282-640/26554

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Federal Highway Administration

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**Information Management and Analysis, HIA-10**
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**Washington, D.C. 20590**

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